



THE JAMES K. MOFFITT FUND.

LIBRARY OF THE UNIVERSITY OF CALIFORNIA.

GIFT OF

JAMES KENNEDY MOFFITT

OF THE CLASS OF '86.

Accession No.

Class No.

~~BIOLOG.~~
~~LIBRARY~~

EDUC.
PSYCH.
LIBRARY

THE
ORIGIN OF THOUGHT



THE
ORIGIN OF THOUGHT

BY THE
REVEREND D. NICKERSON, M.A.
Chaplain to H.M. Forces



LONDON
KEGAN PAUL, TRENCH, TRÜBNER & CO. LTD.
PATERNOSTER HOUSE, CHARING CROSS ROAD
1901

RF121

N5

~~BIOLOGY~~
LIBRARY
EDUC.
PSYCH.
LIBRARY

LONDON :
GILBERT & RIVINGTON, LTD.,
ST. JOHN'S HOUSE, CLERKENWELL, E.C.

MOFFITT

TO MY WIFE

,

109336

CONTENTS.

PART I.

CHAP.	PAGE
INTRODUCTION	xi
I. THE SENSES	1
II. THE EDUCATION OF THE SENSES	8
III. THE INFALLIBILITY OF THE SENSES	13
IV. THE REALITY OF MATTER	23
V. MIND AND MATTER	30
VI. KNOWLEDGE	37
VII. KNOWLEDGE EMPIRICAL	45
VIII. KNOWLEDGE SYNTHETIC	57
IX. SPACE	64
X. TIME	73
XI. CONSCIOUSNESS	79
XII. THOUGHT	91
XIII. THE MEMORY	100
XIV. THE MEMORY	110
XV. LANGUAGE	117
XVI. LANGUAGE	124
XVII. QUALITIES OF MATTER	133
XVIII. JUDGMENT	143
XIX. JUDGMENT	150
XX. REASONING	155
XXI. REASONING	166
XXII. IMAGINATION	174
XXIII. DREAMS	181
XXIV. LAW OF THOUGHT	188

PART II.

CHAP.	PAGE
I. THE FEELINGS	200
II. DESIRE	206
III. PLEASURE AND PAIN	212
IV. SELF-PRESERVATION	224
V. PRESERVATION OF THE RACE	230
VI. LOVE	237
VII. HOPE	251
VIII. AMBITION	258
IX. VANITY, SYMPATHY, PITY	269
X. FEAR	274
XI. ANGER	280
XII. ENVY	285
XIII. HATRED	291
XIV. GRIEF, DESPAIR	295
XV. THE BEAUTIFUL	302
XVI. THE SUBLIME	310
XVII. CONSCIENCE	318
XVIII. THE SOUL	327
XIX. FAITH AND KNOWLEDGE	342
XX. THE SUMMUM BONUM	357
XXI. PERFECTION, PHYSICAL	365
XXII. PERFECTION, INTELLECTUAL	370
XXIII. PERFECTION, MORAL	377
XXIV. CONCLUSION	387
INDEX	391

PREFACE.

THIS book is written for thoughtful young men and women of good ordinary education, but who have not read philosophy. Others who are in the same position, but older, might care to read it also; for no matter what one's education has been, if philosophy has been omitted, that subject has been passed over which more than any other not only begets thought, but helps one to understand the writings of the great men and women of the past and present.

The writer has tried to do two things; to simplify a subject too often made complicated, and to make it interesting.

Many persons while engaged in their life's profession, have always had a relaxation pursuit more or less connected with it. At times they have published the thoughts of their leisure hours. This example is the writer's apology for presenting his, now that he has reached the youth of old age.

LONDON, *17th December*, 1900.

INTRODUCTION.*

THE study of the human mind, it appears to me, ought to be as easy as the study of the body; and it probably would be if those who write of it were to express themselves "in language understood of the people." But generally speaking this is not done. Men, therefore, who are under the impression that they can speak and understand what is written in their own language, are in consequence surprised when they take up a book professing to explain the human mind, to find that books can be written in their own language of which they can understand scarcely a single sentence. The result is they give it up in despair. A middle-aged fox terrier who has seen himself twice in a mirror, will generally, when it is placed before him for the third time, turn away from it. He cannot understand it, and to be forced to look into it gives him pain. Many years ago the writer lent a copy of Sir W. Hamilton's *Metaphysics* to a clergyman who was a university graduate. After reading the first two chapters the book was returned by the reader, who said he could make nothing of it, and had no idea what it was about. Urged to persevere, he definitely declined, saying he could never understand it. Yet there is no doubt that Sir W. Hamilton wrote under the impression that his books would be simplicity itself to graduates, for he wrote to explain metaphysics and logic.

Probably the reason is that some writers use only

* Will the reader please read the Preface first?

technical language, and that others do this, as well as presuppose an acquaintance with logic and metaphysics. As an illustration of the latter, take the following from Kant's "Critique of Pure Reason." Writing of time he says: "If we abstract our internal intuition of ourselves, and all external intuitions, possible only by virtue of this internal intuition, and presented to us by our faculty of representation, and consequently take objects as they are in themselves, then time is nothing. It is only of objective validity in regard to phenomena, because these are things which we regard as objects of our senses. It is no longer objective if we make abstraction of the sensuousness of our intuition, in other words, of that mode of representation which is peculiar to us, and speak of things in general."

Now these sentences are among what may be called Kant's simplest words, yet if they were presented to any man who had only an ordinary education in English subjects and classics, after reading them once, he would most probably decline to say what they mean.

Take another instance. The Right Honourable Arthur Balfour's book, "The Foundations of Belief," is professedly written for the multitude: "If it be asked, 'For whom is this book intended,' I answer that it is intended for the general body of readers interested in such subjects, rather than for the specialists in philosophy. . . . But no knowledge either of the history or the technicalities of philosophy is assumed in the reader, nor do I believe that there is any train of thought here suggested which, if he thinks it worth his while, he will have the least difficulty in following" (pp. 4, 5).

Having the highest opinion of this book, and meeting one night at dinner a middle-aged officer who is a Member of Parliament, a good speaker, and also a Conservative, I

asked his opinion of it. He frankly replied that he could not understand it.

The famous Bishop Butler's "Analogy" is a similar book that is written upon theological belief, yet difficult to understand. If then we find English theological works, which might almost as well have appeared in Latin for the mass of readers of both sexes; it is plain that books upon philosophy, unless very simply written, might upon still stronger grounds have as well appeared in Latin.

Of all English writers upon the mind, Locke and Reid seem to me the ones who will be most easily understood by the greatest number. They write in simple, forcible English, using few technicalities, and seemingly most anxious that their readers should understand them. Locke, too, may be recommended before one reads (in translations if necessary) any of the ancient writers, as for example, Socrates, Plato, or Aristotle. These will be better understood if Locke has been read first, as will also Mr. Herbert Spencer's "First Principles" and "Psychology," Bishop Berkeley, Hume, Leibnitz, Kant, and Des Cartes, &c.

But it may be said to the beginner that no work on the understanding is to be read as one reads a novel, or a work on history. In these books there is nothing required to exercise the understanding, more than in the ordinary events and conversations of daily life; while in a work on the human mind every sentence must be understood before proceeding to the next. By "understood" is meant that the book may be closed, and the reader able to put in his own words what the author wished to convey in the sentence. If this cannot be done after reading the sentence once, it ought to be read over again any number of times till the reader can do it. In this way the book must be gradually read through; but the reader will find that the

further he reads, the more easily will he understand, both as a result of exercising his own mind, and of familiarity with the author's words and style of writing.

But another trouble in understanding these books is the extreme difficulty of the writer's conveying his exact meaning to other minds. "The deeper we push inquiry into the exact meaning of any given name, the more certain it becomes that sooner or later we shall find ourselves approaching the main quicksand of language—the fact that words necessarily postulate definiteness of outline, while as a fact complete definiteness of outline does not exist in nature." ("Fallacies: A View of Logic from the Practical Side," p. 133, Alfred Sidgwick.) This can easily be seen by taking criticisms by different men of the works of an author now dead. One critic will take a sentence and say the author meant so-and-so; another will contend that he meant something different by the same sentence; and a third something different from either of the others. Especially is this the case where bias of judgment comes in, and the critic wants to quote the author in support of his own views. Unfortunately the author is dead, and cannot be asked what he meant. And this has arisen where writers have endeavoured to be as definite, as clear and distinct as they can in the meaning of their words, that is, always using the same word in the same sense.

There is then no other way but to write as simply as possible, in as simple sentences as possible, using words in the sense they are most generally used by the mass of the people, and so trying to convey the definite ideas we have in our minds to the minds of others. I have no certainty of being able to do this, and very much fear that charges of indefiniteness in the use of words, and of involved sentences, may justly be preferred against me. To this my only reply

can be that no one can make himself perfectly understood, because no one is perfect. Even where the author is perfect, as in the case of the Deity in His communications to humanity; want of perfection in the recipient hinders the perfect realization of the communication. I can only then ask the reader to kindly bear with my many faults and imperfections, in the hope that the perusal of these pages may make him interested in the study of the human mind, and may incite to further efforts and desires to read the works of those master minds who have written more fully and ably upon this subject than I can hope to do. It will be my aim, however, to prevent anything appearing in these pages which conflicts in any way with what is called in men and animals, common sense.

THE ORIGIN OF THOUGHT.

ERRATA.

Page 123, line 4 from bottom, *for* alone, *read* aloud.

Page 321, line 7 from bottom, *for* ethereal, *read* ethical.

Page 354, delete last sentence of first paragraph.

Page 399, above Invention, insert Intuitive knowledge, 41.

including five senses. These senses are the only inlets of knowledge to the mind as Dugald Stewart says in his "Philosophical Essays (I., p. 1), "In speculating concerning any of the intellectual phenomena, it is of essential importance to recollect that our knowledge of the material world is derived entirely from our external senses;" and just in proportion as their number is diminished is the

THE ORIGIN OF THOUGHT.

CHAPTER I.

THE SENSES.

A GRACIOUS Providence has given to man a brain much larger than that of any other animal in proportion to his size. The brain is simply the mass of matter in the skull with which man knows, thinks, reasons, etc., just as the bones, tendons and muscles of the arm are a mass of matter by which a weight may be lifted. But as we use the word strength for the exerted or for the potential (latent) power of the arm, so we use the word mind or understanding to indicate the thinking, etc., power of the brain.

Now in order to make the mind conscious of the existence of its owner and of the existence of other things outside of himself, the Creator has given to mankind five senses. These senses are the only inlets of knowledge to the mind as Dugald Stewart says in his "Philosophical Essays (I., p. 1), "In speculating concerning any of the intellectual phenomena, it is of essential importance to recollect that our knowledge of the material world is derived entirely from our external senses;" and just in proportion as their number is diminished is the

difficulty increased of communicating knowledge. Take blindness, or the deprivation of one sense. The blind man is much more helpless than the seeing man, and all that the man with sight learns by means of his eyes, the blind man must learn by touch, or by the laborious teaching of another; while there are some things he can never be made to realise, as, for example, differences of colours.

Now if to blindness we add congenital deafness in the same individual (he will also be dumb, because never having heard a sound he cannot imitate it), the difficulty of his knowing things outside of himself is still further enormously increased. It is plain, then, that if it were possible to have a child born into the world bereft of all his five senses, and if it were possible to feed and rear him, he would be much in the same condition as a vegetable or a tree. He never could be made conscious of his own existence, or of that of anything else. Having, for example, no feeling, he could not experience a sensation of comfort after being fed, or of pain at the continued absence of food. A prick of a pin, or a blow on the head, would be equally unfelt; and if he died by bleeding to death, he would be no more conscious of it than a drooping tree stripped of its bark. This will help us to understand how dependent we are upon the senses for what we know.

Although for convenience we have the five different senses, we have yet in reality but one sense, which is that of touch. For touch, that is, contact, is the action by which each sense perceives the existence of matter. Taste is contact of the thing tested with the tongue, or organs of taste. Smelling

is contact of minute particles of the thing smelt with the olfactory nerves. Hearing is the contact of special waves in the atmosphere with the tympanum of the ear. For certain wise purposes the organ of hearing has been made so as to perceive these sound waves, and to distinguish all shades of difference between them. As these waves move in silence, if there is no ear present to detect them, it thus becomes evident that what is called sound has no real existence; and that if all men and animals had been born without the sense of hearing, sound waves would have been unknown; nor do I see what way they could have been discovered, any more than colour could have been ascertained by a blind humanity.

Sight is caused by the rays of light reflected from objects striking upon the retina of the eye. Here again is contact, or touch, though not immediate (that is the object is perceived, though it does not actually touch the retina of the eye); so that it would seem as if the Deity intended to give mankind the most conclusive argument for the actual existence of matter, by making it impossible for him to become aware of its existence, otherwise than by the sense of touch or contact, immediate or mediate.

The power or strength of the human senses is that best adapted for the wants of mankind, and for the education of his mental faculties.

By the first of these statements is meant, that the strength of the senses is sufficient for the ordinary purposes of every-day life. We can for example see only a certain distance, but far enough for ordinary purposes. So with references to minute

objects; our eyes have not the power of a strong microscope, and I question if we would be much happier than we are at present if they had. So our ears can hear sounds generally necessary for us to know for our safety or comfort, and again it may be questioned if we would be happier than now could we hear without artificial means the world of minute sounds which exists around us; and which are very partially heard by applying a shell to the ear. So again, our sense of smell is quite strong enough to make us avoid the unpleasant and dangerous, or to enjoy the delicious perfume of the rose. Were it as keen or keener than that of a pointer or bloodhound, there might not be many localities where we would care to reside.

“ The bliss of man (could pride that blessing find)
 Is not to act or think beyond mankind ;
 No powers of body or of soul to share,
 But what his nature and his state can bear.
 Why has not man a microscopic eye ?
 For this plain reason, man is not a fly.
 Say, what the use were finer optics given
 To inspect a mine, or comprehend the heaven ?
 Or touch if tremblingly alive all o’er,
 To smart and agonize at every pore ?
 Or quick effluvia darting through the brain
 Die of a rose in aromatic pain ?
 If nature thundered in his opening ears,
 And stunned him with the music of the spheres ;
 How would he wish that Heaven had left him still
 The whispering zephyr, and the purling rill !
 Who finds not Providence all good and wise,
 Alike in what He gives and what denies.”*

With reference to the second statement, many do not realise how very much the education of our faculties would have been hindered, had we been

* Essay on Man, Ep. 1. Pope.

created with senses much stronger than they are ; but let us see.

Every one who has thought of it, knows that the young of the human being comes into the world more helpless and dependent upon its parents than the young of any other animal. The chicks of a day old will begin to pick up their own food. Hatched by an incubator they thrive—though looking very distrait and forlorn—as well as hatched by a hen. The colt or calf of a week old will frisk round its mother. If we take the monkey, the animal most like ourselves, it is the same. In Gibraltar I have seen the small baby of six weeks clinging by its hands and feet to the hair on its mother's back, while she descended head downwards the face of a cliff two hundred feet high, by jumping from point to point of projecting rock. I remember, too, once seeing a man take some blind puppies of four days old to the head of a pier, and throw them into the sea to drown them. Though there was a heavy dead swell running, one swam some six yards, and another ten before sinking.

Now with this compare the absolute helplessness of the human infant. Imagine one of two months thrown into the sea, and expecting it to swim. Why then are infants born into the world so helpless? Because of all animals man is best able to take care of his young for the longest time, as he has the greatest brain power. Since his young is so helpless also, his best powers for taking care of it have been educated, as they would not have been had children come into the world as well able to take care of themselves as chickens. If we had been born clothed with hair or feathers, like some

animals and birds, we never would have invented and woven the beautiful fabrics made and worn.

So it is with our senses. Take sight. That of the vulture, far exceeding the sight of man, has long been known. In the Book of Job, one of the oldest in the Bible, we read:—

“ There is a path which no fowl knoweth,
And which the vulture’s eye hath not seen.”

Some years ago I remember reading of pig-sticking by some officers upon an Indian plain. The author wrote that when they killed a boar there was not a speck to be seen in the cloudless sky; but half-an-hour after they left the carcase, having cut off what they wanted, it was covered with vultures. Plainly the birds had been soaring beyond the ken of their eyes, watching the whole operation. Sportsmen know also that if they look intently at the head of an eagle four hundred yards away, as I have done, the resting bird will first become uneasy, and then fly away, because, though you cannot see its eye, it looks into yours, and thinks your fixed gaze means mischief.

Now had man been created with a vulture’s power of sight, he would not have had his inventive powers educated, drawn out in this way to result in the field glass or great astronomical telescope; and thus beat the vulture on his own ground, and learn the truth of the existence of other worlds.

Again, if we take the eye of a fish, there is no doubt that it is as serviceable to it in the water as the eye of an animal is to it on land, in the rarer medium of the air. The shark can probably see one or two miles through the water, while by the human eye, when one has dived in salt water, an object—

for example, a hard-boiled egg—can be seen at its natural size only some eight inches from it. Yet if man wanted it, he has powers which could enable him to invent glasses to see a long distance under the water; a yet untried field of invention, but which must inevitably follow the late invention of submarine boats.

So the sense of smell of the dog far surpasses that of man, yet the latter by his higher intelligence can discover what he wants to find better than the dog; just as, though the dog can run faster and further than man, yet the latter can go faster in a railway carriage, and can generally command more rapid motion on land and sea, and soon will in the air.

Here, then, is seen the wisdom of the Creator in compelling us to educate our intellectual faculties by giving us limited physical powers.

CHAPTER II.

THE EDUCATION OF THE SENSES.

THE senses have to be educated by experience, and a large part of this education takes place in infancy and youth. This, which may be called ordinary education, can be left to be dealt with under the heading of Observation; but the higher education of the senses may be noticed here.

The sense of touch can be very highly educated in the blind. If a man play a musical instrument, say the piano, his fingers are very highly educated for the work; so much so, that to an onlooker, nothing seems easier than a presto run with both hands from one end of the keyboard to the other, till the observer who has never been taught tries to do it himself, when he finds that the slow, awkward, painful movements of his fingers make his attempt appear ridiculous. So is it with touch. Let the raised characters of a page for blind reading be felt by a man of good sight with his eyes shut, and in most cases he will perceive with his fingers little or no difference between the formation of one letter and another. So if an object be placed in the hands of a blind man, he will perceive slight inequalities of surface, which the man of sight can see, but did not notice with his sense of touch.

Take further the sense of hearing, as in music. The man not accustomed to play a violin, though he

has a "musical ear," cannot distinguish the fine shade of difference between a very high note on one violin and the same note on another. If again he can be got to detect it, he cannot tell which of the two is very slightly sharp or flat; while the practised violinist has no difficulty at all in determining it.

Again, if a man has not been practised in tuning a piano, let him try to tune the chromatic scale in C, going upwards. When done, if he strike the tonic chord in the key of A it may sound right. Let him now strike the tonic chord of A flat, and it sounds wrong. He then finds that in tuning his accidentals as sharps they sounded right till he tried to play them as flats, when he perceives at once they are too sharp. Let him conquer this initial difficulty, and when he comes to tune the lowest octave his ear will not tell him whether one note is higher or lower than another.

From this it is evident that a sense may be strengthened to a remarkable extent by cultivation. This is especially the case when success in obtaining food or gain depends upon its cultivation, as witness the fact of stronger sight, smell, or hearing in certain savage tribes than among civilised peoples. It is well known, too, that a particular sense educated in this way through generations has a tendency to become hereditary. This seems to be the case with music, for, as a rule, parents who have "musical ears" always beget musical children. Indeed, I have never known or heard of an instance where both parents had a musical ear, and yet begot a child that was absolutely devoid of it. When one parent has it and the other not, one child may

have a musical ear, and another not; but all of them will not be absolutely without it.

On the other hand, the senses would appear to follow the usual rule of the muscles of the body with reference to disease. If the arm be bound to the side for some time, the muscles decrease in size, and gradually dwindle away. So if a sense is not exercised for years, its strength diminishes.

Observation points to the fact, too, that though all the senses in an individual may be of normal strength, there are shades of difference in different individuals. In most ladies, for example, it will be found that their senses of smell and hearing are more delicately acute than the same in most men. Those of men may possibly be dulled by rougher contact with ordinary life, or the female organization may be more delicately constituted; but whatever the reason is, the fact remains. Most married men will, I think, confirm this; that they trust to these senses in their wives for fine distinctions, more than to their own. This being so, it may be doubted if any two human beings get exactly the same sensation from the same sense perception. Consequently though both may agree in hearing the same noise, one would have a stronger sensation of it than the other; or, in experiencing a pleasure from the scent of the same rose, one would experience a higher pleasure than the other. In taste there can be little doubt that the epicure gets a higher sense of enjoyment from a perfectly cooked rare dish, than a man who cares very little for the pleasures of the table. For obvious reasons it is, however, difficult to arrive at the truth in this matter.

There can be no doubt, again, that sense percep-

tions are strengthened temporarily by the emotions or passions of the mind, as love or fear. Take the highly emotional state caused by love. Moonlight and moonlight scenery that would be commonplace when one is alone or sad, become charming when enjoyed in a walk with a loved one. Food from her hand is sweeter than ordinarily, while a touch of her hand will send a thrill through the whole body. Fear, too, will quicken both sight and hearing, as every one knows.

Again, as some have a certain sense stronger than it is in others, individuals may be found whose senses are defective in some particular. The discovery of colour blindness in recent years is an evidence of this. When two seamen swore in court of a light, one that it was green and the other that it was red, it occurred to the judge to have the eyes of one tested, when it was found that he was colour-blind, and had not previously been aware of it himself. To him all colours in lamps appeared red. Since then, to be able to distinguish colours, or to have perfect eyes, is necessary for taking a master mariner's certificate, and for engine drivers, etc.

So is it with the ears. I have known people musically deaf, whose hearing seemed right enough in other respects. These people cannot distinguish one tune from another. They cannot sing in the same tone as others with whom they try to sing, and they are absolutely unaware that their droning is making the music discordant. Once I asked a man of this kind what the piano sounded like to him when a lady was playing one of Mozart's Sonatas. His reply was: "Exactly like a heavy waggon rattling

along a stony street." This was a very plain instance of different sensations produced in different individuals by the same sounds.

With reference to what is called a "musical ear," my experience is that in different individuals it may be found respectively, in every degree, from absolute zero to the perfect one of a Bach, a Spohr, a Handel or Beethoven. Take a dozen boys separately, strike C on the piano, and after showing him how to do it, ask each one to sing "Doh" to it. One will instantly sound it, or any other note you touch within the compass of his voice. Another cannot sound it at all. He will sing above it, below it, everywhere but on it; and is not, and can never be made conscious that he is not in unison with it. Another may get it after two or three attempts. His ear can be improved by instruction, but he never could become what the first perhaps might, a musical genius. Apparently more females have "musical ears" than males; and a kind Providence has generously given a "musical ear" to a large majority of mankind. Naturally those who are absolutely devoid of it, miss one of life's highest enjoyments; while, oddly enough, their sense of hearing seems perfect in all other particulars. They can, for example, distinguish a female voice from a male, though they may not know why; and the caw of a rook from the whistle of a kite.

CHAPTER III.

THE INFALLIBILITY OF THE SENSES.

IF in this world there was absolutely nothing we could be certain of, and all men believed and acted upon that supposition, it appears to me that life would be impossible. If, for example, a man did not believe that he existed, not that others existed, nor that food sustained life, nor that there was air to breathe, or earth to walk upon; and acted upon that belief, and tried to persuade others (if he attempted to speak to others whose existence he denied) to act upon it also; he would be accounted insane, and to all intents and purposes would be so. For, not believing in his own existence, or that of anything else, he would decline to do the most simple and necessary actions of life. Accordingly those idealists who say that nothing can be positively asserted but "*cogito ergo sum*," that of everything else it may be asserted they are but images of the mind, are unable to act upon their belief. They eat and drink, for example (matter outside of themselves), and often are most fastidious in their choice of quality and quantity. They fear a blow, showing that they wish to avoid pain; they enjoy pleasure and perform the actions of ordinary mortals to prolong life. In short, their deeds show that they believe in the existence of themselves, and things outside of themselves, no matter what

their reasoning may be—in fact, that they believe some things must be accounted certainties.

Now the first certainty we must all have, and which all act upon whether they believe it or not, is the infallibility of the senses. By this is meant that when the senses are in their normal state, and in a healthy condition, they never deceive; that is, convey a false sensation to the brain as a result of their perception. Indeed, when not in their normal state or a healthy condition, they do the best they can.

But first an observation about the word “deceive,” which is always used in this connection. It seems scarcely a proper word to use, because nothing can deceive that is not a thinking subject, which the senses are not. They are, indeed, mere automata, acting in the most perfect obedience to laws which they can neither make nor control. They are, in short, just like a plane mirror. If the mirror is made properly of plate glass, without a flaw, it will reflect a perfect image; and it must and can only reflect what is put before it, having absolutely no power to do anything else. Just so is it with the human eye for example. A familiar object—as, say a chair—falls upon the retina, and the sensation of a chair perceived by the eye is produced in the mind; and the eye through the optic nerve would have no more power to convey any other sensation to the mind, than a mirror with a chair placed before it would have the power to reflect a horse. If a mistake is made, the mistake is not in the eye, but in the judgment. If, for example, on a foggy night, the eye perceives a post, and the judgment determines the post to be a man, was a man perceived

by the eye? By no means. The optic nerve conveyed to the brain the sensation of what the retina perceived; and if the mind judged it to be a man when it was a post, that was not the fault of the eye but of the judgment. This is strengthened by the fact, that in a doubtful case the man will put his hand upon the post to get more data than the eye, or sense of sight, can give to form a definite judgment. "For truth or illusory appearance does not reside in the object, in so far as it is intuited, but in the judgment upon the object, in so far as it is thought. It is, therefore, quite correct to say that the senses do not err, not because they always judge correctly, but because *they do not* judge at all. Hence truth and error, consequently also illusory appearance as the cause of error, are only to be found in a judgment, that is, in the relation of an object to our understanding. In a cognition which completely harmonises with the laws of understanding no error can exist. In a representation of the senses—as not containing any judgment—there is also no error."*

That the senses should be in their normal state to enable the mind to form an ordinary or correct judgment is meant, for example, with reference to the hand that it should be at its usual temperature and strength. If the hand is very cold, a cool object will appear warm to the touch. But this is not a sense deception. It is merely that the sense of touch, contracted and numbed with cold, transmitted to the mind its perception of the cool object, which perception must be different to that transmitted when the nerves of touch in the hand are at their

* Critique of Pure Reason. II. 1. Kant.

usual temperature. Exactly the same is it if the hand touch a warm object when the hand is very hot. The warm object will appear cold, when it would have appeared warm touched by a hand at its ordinary temperature, that is, by a sense in its normal state.

Again, if we look at the sun for a moment, for a minute after looking away we see a bright but gradually fading sun wherever we look. This, however, is not a sense deception. The retina of the eye has been temporarily disabled by an infliction upon it of a luminous object stronger than it can bear; and this image it is not possible to throw off till the retina, by rest, has recovered its tone—in other words, till it is in its normal state.

Again, when one wakes in the morning, and looks intently for a minute or so upon a picture or some large coloured letters, and then looks upon a white wall and sees the picture or letters reproduced in other colours upon the wall; this is not a sense deception. It is only a proof of a well-known fact, that after the retina of the eye has had a long rest, a brilliant object will make such a strong impression upon it that the impression will not fade away for a few seconds, instead of instantaneously, as when the sense of sight is in its normal state.

So the sense of taste may be disturbed for a time by taking some very bitter or acrid substance in the mouth; or that of hearing be disturbed for a time by the ears being compulsorily subjected to the roar of a great gun.

It is just the same if after lifting heavy weights one were to attempt to judge of the weight of a letter balanced upon the finger. In all these in-

stances the common sense of the multitude comes to one's aid; and belief in the proper working of the senses is shown by those who have never examined the subject at all, if you ask them to judge of something when the sense is not in its normal state. Ask one who has just been looking at the sun, whether a colour is pink or yellow; and he will reply with an impatience rebuking you for your stupidity in asking him at such a time, "Wait till my eyes are all right, and I will tell you."

The well-known fact of pressure upon the eyeballs in the dark producing light in the eyes is another instance where the sense of sight is not in its normal state. A blow from a fist on the eye produces sudden streaks of light, by the eyeball being compressed; while gentle pressure with the fingers upon the eyelids produces a continuous luminous appearance. Because this is so, however, no one would dream of saying that you were not in the ordinary affairs of daily life to trust your eyes.

Again, for the senses to work properly and normally they—or the body—must be in their usual healthy condition. If, for example, the ends of the fingers, which are full of tactile nerves, have been recently burnt; to attempt to discriminate with them would be impossible, as the slightest touch would produce such a sensation of exquisite pain as to make the fingers useless.

The eye, however, when the body or brain is in certain conditions, can, it is well known, be affected by reflex action. After a heavy blow on the head, flashes of light will be observed in the closed eyes; or if the blue sky is gazed upon, small objects like animalcula will be seen gliding hither and thither apparently upon the cornea.

So in certain states of the brain the form of a deceased friend will be seen as in life sitting upon a chair, and will remain at times till the subject attempts to seize it, when the hand will appear to go through it, and the figure vanishes. "On the 17th March, 1830, Mrs. A was preparing for bed. She had dismissed her maid, and was sitting with her feet in hot water. Having an excellent memory, she had been thinking upon and repeating to herself a striking passage in the *Edinburgh Review*, when, on raising her eyes, she saw seated in a large easy chair before her the figure of a deceased friend, the sister of Mr. A. The figure was dressed, as had been usual with her, with great neatness, but in a gown of a peculiar kind, such as Mrs. A had never seen her wear; but exactly such as had been described to her by a common friend as having been worn by Mr. A's sister during her last visit to England. Mrs. A paid particular attention to the dress, air, and appearance of the figure, which sat in an easy attitude in the chair, holding a handkerchief in her hand. Mrs. A tried to speak to it, but experienced a difficulty in doing so, and in about three minutes the figure disappeared.

"About a minute afterwards Mr. A came into the room and found Mrs. A slightly nervous, but fully aware of the delusive nature of the apparition. She described it as having all the vivid colouring and apparent reality of life, and for some hours preceding this and other visions she experienced a peculiar sensation in her eyes, which seemed to be relieved when the vision had ceased."*

In the same appendix is related an aural illusion

* Elementary Physiology. Appendix B. Huxley.

of this same lady, which it is easy for me to believe, as a very striking one happened to myself—though an unbeliever in presentiments, etc.—in August, 1885, at midnight, when sitting up to attend upon a friend ill with enteric fever, who died the next morning.

Such appearances have naturally enough given rise to ghost stories, and visitations of spirits in endless numbers; but they are purely subjective, and are no more real than the devils or reptiles the sufferer from delirium is so certain he sees that he struggles to escape them. Insane persons, too, often believe themselves to be followed by some horrible apparition or animal, which they endeavour to escape. They will, at times, beg a visitor to kill this follower and relieve them from it.

But these things happening only when the body or mind is not in a healthy condition disturb no sensible person who is healthy. Who, for example, would say you cannot trust your eyes because a man in delirium, either tremens or resulting from fever, fancies he sees startling appearances? The common sense of the most illiterate tells him that a disordered brain has affected the sufferer; and that a weakened judgment is distorting the ordinary images which appear on the retina into things not in the room at all.

The senses, then, never deceive, and may be implicitly trusted, but it is a very different matter with the judgment. Let two people look upon the same object, say, for example, let a lady and a costermonger both look upon a respectable young woman of the coster class. Exactly the same image will fall upon the retina of the eyes of the lady as upon

the eyes of the costermonger; just as exactly the same as if the young woman was reflected by two plane mirrors. Now ask what judgment each has formed upon the young woman, and the probability is they will differ upon every particular. One will say for looks, pretty; the other may say, plain: one tastily dressed; the other, vulgarly dressed, etc. Indeed, with regard to female beauty, we may note in passing, Providence has wisely decreed for the most general union of the sexes, that there is no subject upon which men shall differ more widely than that. Consequently the woman one man thinks lovely, his neighbour may think plain or very ugly, and *vice versâ*. So much have I noticed this, that it may be questioned whether there is a woman in the world, however ugly, who would not be thought a beauty by some man, in some country, who would certainly marry her for her beauty were he to meet her. Now when two men look upon the same female face, there is no doubt that the same face is reflected in each of their eyes. But one says she is beautiful, the other repulsive. What pronounced this judgment, the sense of sight, or the mind? Plainly the latter, just as it is the judgment which is educated to the perception of beauty in art or nature, and not the eye. Peasant and painter, for example, look at the same landscape. The latter sees beauty everywhere, the former nowhere, except perhaps that it is fine pasture, or a good country for roots or cereals. Yet the same particular objects in the landscape must have fallen upon the eyes of each, but the one had a mind trained to observe the beautiful, the other has it not.

Concerning the apparent sense deceptions of con-

jurors, they may be said mostly to come under the heading of the limitation of our senses. No one believes that his sense of sight deceived him, because he did not see a bullet shot from a rifle pass across his line of vision; or that it deceives him because he cannot see with his naked eye the animalcula in a drop of water. The unaided eye was not made for these things.

The judgment may be influenced at times to cause one to believe that he is, for example, bodily injured. This, again, is plainly not a deception of the senses, but of the judgment. Let a man arm himself with a stage dagger; let him apparently work himself into a violent rage against another and, after angry words, draw his dagger, rush upon the other, saying he will stab him, and apparently plunge it into his body, the handle striking the body with a sharp blow. The stricken man will fall, crying out that he is stabbed, will apparently feel blood trickling from the wound, will toss himself in agony, and be convinced that he is uninjured only when his clothes are removed and no blood or wound is visible. So strongly may the judgment be influenced in this way that the person so tricked, if of a nervous temperament, has at times nearly died of shock. A little consideration of these cases will show one that there was no sense deception, but that the judgment was too disturbed to determine whether the sensation caused by the blow was other than the result of a stab; and imagining from all the surroundings that it was a stab, determined it to be so.

Although for the ordinary purposes of life every one acts upon the belief that the senses do not deceive, yet there is no more general error among

careless thinkers than that they do. A book written by the late Dr. Carpenter, some twenty years ago, called "Mental Physiology," is a striking instance of this. The author was a good medical man, and a useful writer, yet he fell into this error; and under the heading of sense deceptions gives instances like that above, only accidental (for example, a butcher's assistant who fell on a hook), to prove that the person's senses deceived them.

No belief than that of sense deception is more useful for all kinds of chicanery. Once get persons to believe that their senses are not to be trusted, and whatever they affirm they have seen or heard, etc., may be denied. The old Eastern tale of the man who wanted to buy his neighbour's horse for the price of an ass, illustrates this. It was easily done by arranging that the man when conducting his horse to the market for sale should be met by different people at intervals on the road, who would speak of the beast as an ass, and offer the price of an ass. The man held out till he became doubtful of his eyes, when he actually sold the horse as an ass, for the price of an ass; evidently convinced that if everyone called that an ass which appeared to him, and always had, to be a horse, there must be something wrong with himself.

CHAPTER IV.

THE REALITY OF MATTER

THE next certainty we must postulate to understand the origin of thought and the working of the mind is the reality of matter. This means that all things created have an actual or real existence. "If a man," said Epictetus, "oppose evident truths it is not easy to find arguments by which we shall make him change his opinion."* To strengthen our belief, however, in the reality of matter, may be added a truth long known to the world, mentioned by Marcus Aurelius Antoninus—the indestructibility of matter. He says in his "Thoughts" (v. 13), "I am composed of the formal and the material, and neither of them will perish into non-existence, as neither of them came into existence out of non-existence. Every part of me then will be reduced by change into some part of the universe, and that again will change into another part of the universe, and so on for ever. And by consequence of such a change I too exist, and those who begot me, and so on for ever in the other direction."†

Matter, as children are taught, exists in three forms; solid, liquid, and gaseous. By the indestructibility of matter is meant, then, that it is impossible to put out of existence the smallest particle of created matter. We can only change

* Epictetus v. Against the academics.

† Long's Trans.



its form, but never destroy it. Take ice, a solid; melt it, it becomes a liquid; boil the liquid long enough, and the original solid has passed away from our eyes in the form of steam or the gaseous; but its matter still has existence.

Further we can strengthen our belief in the actual existence of matter by the reality of its properties. Force is an actual property of matter, and although some have tried, like the late Mr. J. S. Mill, to deny it—in one of his three posthumous essays—it cannot have an existence independently of matter. Professor P. G. Tait in his book, “Recent Advances in Physical Science,” devotes a chapter to the proof of this. Comparatively late researches in physical science, too, have demonstrated the conservation of energy; that is, that the total amount of energy in matter cannot be altered or destroyed. It may be transferred or transformed in parts, but the totality always remains the same. The well-known law is as follows:—“The total energy of any body or system of bodies is a quantity which can neither be increased nor diminished by any mutual action of those bodies, though it may be transformed into any of the forms of which energy is susceptible.”* Here, then, we have two scientific truths so absolutely certain that any man of science would stake his existence upon their certainty; the indestructibility of matter, and the conservation of energy, to assist in proving the postulate that matter actually exists.

When an ordinary man hears for the first time of a certain idealism, he laughs at it. When told that nothing actually exists, except as representations in the mind of the subject, he affirms bluntly

* Theory of Heat. Maxwell.

that any man is a fool who says so, and, perhaps, he is not so very far wrong. Mr. H. Spencer says in his "First Principles" (p. 88), "It is rigorously impossible to conceive that our knowledge is a knowledge of appearances only, without at the same time conceiving a reality of which they are appearances; for appearance without reality is unthinkable." For we have seen above that these idealists cannot act upon their belief. A representation of food in the mind will not satisfy a craving stomach, which, although empty and hungry, could not cause pain to its possessor unless it had a real existence, and unless the changes taking place in the nerves, which we call pain, had a real existence also. Or to take another case, what would an idealist of the "cogito ergo sum" school have to say to this? A has at length so far reasoned B out of his common sense as to induce B to accept his teaching of "Cogito ergo sum" only, when the following dialogue takes place:—

B. You affirm that to you the only certainty is that of your own existence. You say "Cogito ergo sum"? (I think therefore I am).

A. Yes.

B. You would not say to me "Cogitas ergo es" (you think therefore you are) because I, being matter outside of you, you cannot be certain of my existence?

A. That is so.

B. And I am to say "Cogito ergo sum." I could not say to you, "Cogitas ergo es"?

A. No, certainly not.

B. I am then certain only of my existence, and you are certain only of yours?

A. Yes.

B. But if I am certain only of my existence, and deny yours, I contradict you; for you believe yours?

A. Yes, that would seem to be so.

B. And if you are certain only of your existence and deny mine, you contradict me; for I believe mine?

A. Yes, that is so.

B. Then if in denying my existence you contradict me, while I in denying yours contradict you; we mutually contradict each other?

A. Apparently so.

B. Then either you or I must be mistaken, as we cannot both be right.

A. Yes.

B. Then the one who denies the other's existence must be wrong, and, as we both do so, it would seem we are both wrong?

A. It would seem so.

Again, all animated nature acts implicitly upon a belief in the actual existence of matter. The fish in the sea knows that water will support its body, though probably to its eyes water is as invisible as air to us. Take it from the water and it struggles to get back, back to the element that is so deadly for land animals. The smaller fishes have a manifest terror of the larger fishes of prey, and keep out of their way, knowing they would be devoured. So the bird that cannot see the air knows its reality,

and that of the hard ground, solid matter; as it will not encourage its young to leave the nest till they can fly. But when they have strength to do so, the parent bird, by opening and using its wings, shows the young ones how to sustain themselves in the gaseous matter they cannot see, and to progress in it from place to place. If any one has observed a tiger stealing upon its prey, say a deer, would he think that the tiger acted as if he doubted the existence of the deer; or of its eyes to see him should he expose himself, or of its ears to hear him if he make a sound in walking? Does any one who has seen the lions and tigers fed in the Zoological Gardens think they doubted the existence of the meat they saw and smelt? So is it with man. The child approaches too near the fire and burns his hand. Take the child and tell him flame has no existence, that what he thinks is flame is but a representation in his mind; and ask him to hold his hand in it. No persuasion would do it, for he has already learnt our two postulates, that his senses do not deceive him and that matter exists.

Again, it appears to me a valid proof of the actual existence of matter that we have to eat and drink to sustain life. Everyone knows that in the adult a certain amount of wear and tear of the living tissue takes place. This waste must be repaired. How is it to be done? By the wonderful process of taking matter, or things outside of ourselves, and turning it into blood, bones, tendons, nails, or hair, whatever the living substance be that needs repairing. What a wonderful work is this! What chemist in his laboratory could manufacture living flesh, or a finger nail, or hair? Yet we have only to take what

is useful to sustain life, masticate it into pulp, and send it down to that great analyst, the stomach; and by digestion and subsequent operations it is turned into blood, borne to every part of the body, and what is useful for each part is seized upon in its own place, while the used up particles are borne away. And all this building up is done by the most minute atoms. The very brain itself, the thinking organ, has to be nourished in this way; so that we have the astonishing fact presented of the mind experiencing the sensation resulting from the sight of bread; and a very short time after that bread helping to nourish the brain, the very organ that made us conscious of its existence. Could any union be closer than this, that extraneous matter has actually become part of the person, the Non Ego merged into the Ego? It is a strange fact, too, to be noted in passing, that excepting salts and water what is eaten to nourish life had life itself. Nothing it seems to me can get over this fact. Men may dispute how the mind may know matter, whether mediately, immediately, or not at all; but all the time they may eat it, and the very eating of it gives the brain power in the mind to question its existence, as seen by the eye or felt by the hand.

Probably what has given rise to questions of this kind is the possession of the sense of sight. If one wear magnifying glasses, he can alter the size of every object beheld; or if he put on tinted glasses he can change the colour of everything; or if he look through specially prepared glasses he can distort the shape of everything. Though I have never questioned the blind upon this subject, it may easily be imagined that because so much with them de-

pend upon the sense of touch, the reality of things outside of themselves is a conviction so strong that it has never been doubted.

It may, then, be affirmed positively, that what the common sense of mankind and animals tells us of the actual existence of matter is correct; and as the most advanced science proves it also, this second postulate may be added to the first as a certainty. Having, then, these two certainties as a foundation, the infallibility of the senses, and the reality of matter, we may pass on to consider the next step, the connection of mind and matter.

CHAPTER V.

MIND AND MATTER.

AFTER the consideration of the reality of matter, and of the senses by which we become cognizant of that existence, the question naturally arises as to the connection of matter and mind. How is it that our senses make us aware of the existence of things external to ourselves?

The very question involves a difficulty which is as yet, and has been hitherto, believed to be impossible of solution. "By means of the nerves an impression is made on the brain. With respect, however, to the manner in which this process is carried on, and even with respect to the nature of the changes that take place in the nerves and brain, in the case of perception we are hitherto ignorant; nor does there seem to be any probability that we shall ever obtain satisfactory information."* The time will most probably come, however, when it will be no longer a difficulty,† but meanwhile there is no question in philosophy that has been more discussed than this. It has given rise to various schools, between some of which there are but minute shades of difference, and to others that are absolutely opposed to common sense. For this must be taken into consideration, and for the best of reasons, namely, that what

* Outlines of Moral Philosophy, Vol. II. 1. Dugald Stewart.

† See *infra*.

is opposed to common sense will never command universal belief. For suppose one says that the mind can never know matter as existing. He may be told by an analyst that his time is spent in separating into their primary constituents the matter of which various substances is composed; and that he finds each atom in an element corresponds with all others in the same element. By another he will be told that his senses tell him, and rightly, of the various primary and secondary qualities of matter. By another, that by taking food and drink, the mass of living matter composing his body is nourished and strengthened to do his daily work; while without food and drink his body would gradually waste away till life left it, when by decay it would return to its original elements. And these are facts that cannot be gainsaid, so that if a man were convinced by argument that he could not know matter, he would probably say that though he could not reply, and was beaten in argument, yet that matter existed, and he knew it, and nothing could persuade him to the contrary.

How then can we know that matter external to us exists?

The human body of an individual is while alive a complete whole, and to work perfectly needs to be a perfect whole. It is true that parts may be removed, as an arm, or a leg, or both arms and legs, and yet the body live; but for the present this is beside the question. In the perfect human body, then, each part is necessary, and the circulation of the blood permeates every particle, no matter how distant from the heart, while every part has its nerves. The prick of a pin in the end of the great

toe is as painful as the same in the neck. Now in one respect the body is like other extended but finite matter, but infinitely more perfect. Take, for example, an iron rod six feet long. Put one end to the ear, and the slightest tap on the other end is distinctly heard. In other words, the tap at one end is transmitted to the other, though life and nerves are absent. Is this to be true of inanimate iron and not true of the human body? On the contrary, the living body is so filled with nervous conductors that it is infinitely superior to the iron as a transmitter of sense perception. Let a fly alight on the foot, and it can be felt by the foot and noticed by the brain. If, then, the tap on the iron is a reality, and the perception at the other end of it by a sentient being a reality, is not a tap on the foot and its sensation in the brain a reality also? Undoubtedly so. But now comes our difficulty, which it seems to me is, not how sensations are produced on the brain—we know they are—but what makes us know that we know? Here is a mass of matter, the brain, in the cavity of the skull. It is as much matter as an apple, or wood, or iron; and taken from the skull of a dead subject it is rapidly perishable; but in the skull of a living subject, with blood flowing through it, it causes the man to know that he is, and to experience all the sensations that come from the internal and external world in which he lives. What does this? What transforms sensation in the brain into what we call thought in the mind, thought which makes the certainty of our existence known to us, and which enables us to judge of the sense perceptions transmitted? It is not life; vegetables have that, but cannot know it. It

is not the possession of a soul, for animals without souls have the same power, but in respectively less degrees, even to a black-beetle. It is not consciousness, for the thoughts of a sleeping man may be directed into certain channels by circumstances going on around him, as in *Pickwick Papers* the sleeping Mr Winkle's were by the continuous rapping on the front door of the chair carrier to get admittance for Mrs. Dowler. It is simply a power given to animals by their Creator, but what it is none can say. Yet it depends for its proper working on the necessary amount of nourishment the brain gets from food; in other words, it is kept going by the additions of formerly inert matter added to the brain, that is, all the substances by which this inexplicable thing is produced, blood nerves, and brain tissue are materials capable of analysis. It is like life, something whose existence all must acknowledge, but cannot explain. It is a power not material, yet, like force, dependent upon material things for its existence. There we must leave it, but this does not in the least affect our belief in it, any more than one would deny life because he does not know what is the principle of life.

Accordingly in the every-day actions of life we use our senses from morning till night, direct our ways by means of them; know that we live, and that matter exists, and rightly believe it all reality. The senses perceive certain objects, transmit their perceptions through the nerves—the telegraph wires—to the brain, when sensations are produced which thought understands, and can, if necessary, explain in words. As all senses are touch, and four of them direct, we become immediately conscious of the ac-

tions of these senses; that is, by their means we are brought into direct contact with matter; just as direct as an anvil is with the hammer by which it is struck. With regard to the other sense, that of sight, which is indirect touch, although this is so, it is yet as true and certain in its action as the others of direct immediate touch are. To prove this one has only to look at an object, then take it in his hands and examine it with the sense of touch. He will find that in all respects his sense of actual touch corroborates that of sight, and proves that his eyes were right. He will find further that his eyes are far superior to his sense of touch, inasmuch as he can see things on the object (for, example, the printing on this paper) no sense of touch could ever make him perceive.

The education of the mind to know matter and its qualities by means of sense perception begins in earliest infancy. The first sensation of the young infant is, probably, that of light, which has made an impression on the mind and incipient memory unconsciously to the child. When the eyes are open light strikes upon the retina. A sensation is produced in the brain, and—what is commonly called—an impression made upon that part of it called memory, but thought is not yet begotten. The child sleeps. When it again opens its eyes another sensation of light is produced in the brain and its effect imprinted upon the memory, deepening the first impression. The operation is repeated at intervals, the impression on the memory becoming more and more permanent. After a time, when the child happens to be awake at night, the nurse will move a lighted lamp or candle slowly backwards and

forwards before its eyes to see "if it has begun to notice yet." The sensation of light having often been repeated on the child's brain and memory, when the lamp or candle is moved before its eyes, it seems familiar; that is, remembered by the brain still innocent of thought, and the child's eyes, being attracted by the light, move to and fro with it. The nurse says, "The child notices."

The next sensation is probably that of moving objects. By day the objects in the room are reflected on the child's retina, once more giving sensations of light, but now with shades. As the child is moved or carried, these objects seem to move and attract attention. Again, the mother's face or nurse's, moving before the child's eyes, attracts its attention; and this being often repeated becomes by memory familiar. The face of the mother then gives a familiar feeling to the child's mind, and so a comfortable one, the child not knowing why. But this is not strong enough yet to prevent the child from being handled with indifference to it by any one. Later on it becomes so strong that the child will not leave the mother or father if a stranger wants to hold it. It has now got sufficiently far to discriminate between individuals. But before this takes place it has made acquaintance with a rattle, attracting both ears and eyes, and various other small objects or sounds intended to amuse it, but which in reality beget thought from the sensations produced in the brain. Every sensation affects memory and the nerves brought into action with it, so that when the same sensation is produced a second time it is more rapidly and easily produced than it was at first. In short, the sensation produced on the

brain affects the same parts affected before by the same sensation, the force taking the direction of least resistance. The oftener the sensation is repeated, the stronger the effect produced on the memory; until the time comes when the judgment passed upon a sensation, resulting from a sense perception, is instantaneous. Then this sensation will never be forgotten, while the senses act almost automatically in perceiving it.

In this way our primary knowledge of matter and its qualities is obtained in early life, some of it before the child can talk, and much of it before it is two or three years old. What is hard or soft; what is hot or cold, opaque or transparent, large or small, pleasing or frightful, pretty or ugly, etc., not to speak of food or drink, or familiar household objects; all these are learnt so early in life that I am safe in saying not one reader of these pages over fifteen can remember when he learnt them. All, of course, were learnt by sense perception, and so practised has the mind become in discriminating these sense perceptions that the moment a child touches a stone he knows it is hard, or bread, he knows it is soft; indeed, he knows it without touching them.

This, then, is the way, expressed as shortly as possible, the mind has become aware of the existence of matter; and learned to distinguish between different objects by discerning the sensations resulting from different sense perceptions.

CHAPTER VI.

KNOWLEDGE.

FROM what has been said above it is evident that all our knowledge of matter is acquired through the senses, and is a result either of our own experience or that of others. This means that we are born into the world with absolutely no knowledge in our minds. As some in different ages of the world have held the opposite, Locke in his work on the Human Understanding proves at great length the above opinion of—as he calls it, “no innate principles,” which he held very strongly. “*The way shown how we come by any knowledge, sufficient to prove it not innate.*” It is an established opinion amongst some men that there are in the understanding certain innate principles; some primary notions, *κοινὰ ἔννοιαι*, characters as it were stamped upon the mind of man, which the soul receives in its very first being, and brings into the world with it. It would be sufficient to convince unprejudiced readers of the falseness of this supposition, if I should only show (as I hope I shall in the following parts of this discourse) how men, barely by the use of their natural faculties, may attain to all the knowledge they have without the help of any innate impressions, and may arrive at certainty without any such original notions or principles. For I imagine any one will easily grant that it would be impertinent to

suppose the ideas of colours innate in a creature to whom God hath given sight, and a power to receive them by the eyes from external objects; and no less unreasonable would it be to attribute several truths to the impressions of nature and innate characters, when we may observe in ourselves faculties fit to attain an easy and certain knowledge of them, as if they were originally imprinted on the mind," etc., etc. (Vol. I., Book 1, 2).

In my opinion Locke is unquestionably right. The human mind at birth is like a fallow field, if such could be found, absolutely without seeds of any kind; waiting to be sown, and capable of bearing whatever should be planted in it. Locke's figure that it is a blank sheet of paper to be written upon is perhaps the best. For if we take the supposed being mentioned above as born into the world without any senses, what thoughts or ideas or knowledge could he possibly have in his mind? What single object of matter or quality of matter could he think of, as, like a tree, he could not learn anything? It cannot be said that the child comes into the world with enough innate knowledge to take food, as it is well known that sucking in the infant is entirely automatic. If the lips are touched with an object, they close upon and suck it automatically; just as a little later, if the palm of the infant's hand is touched with the finger the infant's fingers close upon it in a tiny grip.

Above in speaking of how the mind becomes aware of matter, we have seen how the infant begins to learn. In other words we have seen how knowledge begins in the mind, and continues to be acquired as long as the individual lives. The acquisition of

knowledge beginning with a sensation of light, goes on in the same way till it results in the most one can learn of material things. When, in addition, we have the reason made use of, and philosophical knowledge (that learnt by reasoning) added to that learnt by experience, we get the highly educated man or woman.

Knowledge is commonly said to be of two kinds, empirical and philosophical. Empirical is that gained from experience, as water can be boiled, substances unsupported fall to the ground, birds fly in the air, etc. Philosophical knowledge is that derived from our reasoning powers, as the knowledge of the mind about itself, etc.

Now if we think of it we shall find that this latter is a result of the former, that is, that philosophical reasoning knowledge results from empirical, or knowledge gained by experience. So much is it dependent on it, that without empirical knowledge reasoning knowledge could not exist. It may be said to be then knowledge indirectly resulting from experience, or indirect empirical knowledge; and as this is but a class of empirical, all knowledge, whether derived from reason or experience, may be said to be empirical.

That the knowledge the mind has by reflecting upon itself is dependent upon experience, may be readily seen by taking any of its operations. We call a sensation in the mind the reception of a sense perception. Now we know that we can have sensations, but what would they be dissociated from external things or their effects? If we say, "It is hot," or "It is cold," everyone knows the weather is meant. If one says, expressing the mental feel-

ing of fear, "I am afraid," what meaning would it convey without the naturally following question, "What are you afraid of?" If the reply is, "Of the dog," or "of the lightning," the answer is intelligible. If the reply were to be, "I am afraid of nothing, yet I experience in my mind the feeling of fear," the ordinary answer would be, "That is impossible; you must be afraid of something." So further, who could reason of the feeling of love in the mind, without discoursing of things loved; or the feeling of hatred, without discoursing of something hated? Who could reason of the memory, for example that the mind never forgets, without discoursing of experience to prove it? Who could know anything of the power of the will, or reflect upon it, without reflecting of material circumstances in which the will operated? Who could reflect upon how he thought, without recalling sensations empirically derived to furnish data for conclusions. It seems plain then, that the knowledge of the mind about itself depends directly upon empirical knowledge; or conversely, if matter had no existence, the mind could know nothing of its own operations, as there would have been none.

But let us further take a simple instance of reasoning by syllogism. All men are mortal; John Brown is a man; John Brown is mortal. Reason tells us the truth of the conclusion, but what could reason tell us of it if the mind knew nothing of mortality, men, or, John Brown, all knowledge of which has been gained by experience? Again, two added to two equals four. Reason assents to the truth of this, because we were taught it in childhood, when concrete things, either marks on a slate,

or round balls were used to teach us numbers; that two placed on one side, moved across to two placed on the other side, made four; in other words we learnt it by experience. Enough of this, however, lest we anticipate the discussion in the next chapter.

So is it with that which is called intuitive knowledge. This also is a result of experience. The word intuition is derived from two Latin words, *in*, into; and *tueri*, to look; and is commonly taken to mean that which we know *immediately*, or which does not need to be demonstrated to us, when we would know it *mediately*, or “demonstratively,” as Locke calls it. For example, we need no demonstration that 2 plus 2 equals 4, but we may need a demonstration that any two sides of a triangle are greater than the third side. Any one, then, in endeavouring to prove a thing to another, assumes that he knows the common facts acquired by an ordinary education. He would not stop to prove that a mountain is an elevation of land, and a valley a depression; he would assume that knowledge in the listener, that he knew it intuitively. Now some have taken the words knowledge by intuition to mean that there are some things self-evident to the mind, which were not learnt by experience. A little consideration, however, will show us that the proper use of the word intuitive is that which we know immediately, in point of time; that which we know at once when we see it, or hear it, or generally when it is perceived by the senses. Locke says (*Human Understanding*, Vol. II., 134):—“For if we will reflect on our ways of thinking, we shall find that sometimes the mind perceives the agreement or disagreement of two ideas immediately by

themselves, without the intervention of any other; and this, I think, we may call intuitive knowledge. For in this the mind is at no pains of proving or examining, but perceives the truth as the eye doth light only by being directed towards it. Thus the mind perceives that white is not black, that a circle is not a triangle, that three are more than two, and equal to one and two. Such kind of truths the mind perceives at the first sight of the ideas together by bare intuition, without the intervention of any other idea; and this kind of knowledge is the clearest and most certain that human frailty is capable of."

Now this passage of Locke has been purposely quoted to take his instances to prove what has been said above, that the proper use of the word intuition, or intuitive, is only immediately in point of time. In proving this we shall see that all our so-called intuitive knowledge is a result of experience.

It will be observed then that the instances given to be known intuitively, presuppose an ordinary education up to a certain point. If one takes a lad of fourteen who has never studied geometry, and asks him if white is black, he will reply, "No." Ask him if a circle is a triangle and again he will say, "No," because he has learnt it by ordinary experience, without geometry. But now ask him if any two sides of a triangle are greater than the third side, and he will reply that he does not know. Now turn to a University undergraduate and ask him if any two sides of a triangle are greater than the third side, and he will at once and confidently answer, "Yes!" Does he then know this truth intuitively? Certainly as intuitively as the boy

knows intuitively that black is not white, or that a circle is not a triangle; and as intuitively as a professor of metaphysics would know the first of the so-called laws of thought, that of identity. Each would know his own immediately (at once), the boy that black was not white; the student the two sides of a triangle greater than the third side; the professor, the law of identity. But there was a time in the life of each, when neither boy, student, nor professor knew that black was not white until he learnt it; nor that three was more than two, until he was taught that. The so-called intuitive knowledge of each then had to be learnt by experience, in other words, got as all our knowledge is; and is now known immediately, or at once, or intuitively, because it has been known so long and is so familiar that the moment it is seen it is known. Every one beyond the stage of early childhood knows a horse at once when he sees it. Why? Because he learnt it as a child. For the same reason he knows all other familiar objects; or that two halves make a whole; or that four quarters make a whole; or that two halves equal four quarters. This then is what our intuitive knowledge amounts to, that it is what is known at once, because it is so familiar that it can never be forgotten; and it is plain enough that like all the rest of our knowledge it is derived from experience. No adult savage who had never seen a time fuse of a shell would know what it was at first sight, nor would he know that if equals be added to equals the wholes will be equal; but a gunner would know the time fuse at once, and a school boy of fourteen the second, because they had learnt them by experience.

With reference to intuitive judgments, that is judgments which to many would require reasoning, but which some are able to give correctly at once; they are just like the above. The person giving the judgment instantly, and apparently intuitively, is able to do it because he has had experience before of similar things; and so when a fresh case comes up knows at once what to do. This is an instance, however, where what is called the personal equation needs to be taken into account. In some it is slower than in others. Hence the knowledge might not appear to be so intuitive in the one case as in the other, while in reality it is so.

These remarks about intuitive judgments ought more properly to be made under the later heading of judgment; but as intuitive judgments are scarcely important enough to deserve separate treatment, it is, perhaps, best to dispose of them at once in the present place. It may be said, in conclusion, that instances have occurred where a problem has been presented to a man of highly-trained mathematical mind, and the solution has at once flashed upon him. The working out of it on paper might be of considerable length. This, however, only further proves the truth of what has been said above, that intuition is instant knowledge, resulting from experience and familiarity; as such a solution could not possibly have occurred to a mind ignorant of mathematics.

CHAPTER VII.

KNOWLEDGE EMPIRICAL.

BECAUSE, then, this indirect empirical knowledge exists, that is because from our knowledge gained by experience it is possible to arrive at further conclusions, some philosophers have gone a step in advance, and claimed that a great part of our knowledge does not need experience at all. They call this *a priori* knowledge, that is knowledge not gained by experience; while empirical knowledge is called *a posteriori*, or that gained by experience. The Latin names seem to me unfortunate, for knowledge *a priori* means that gained at first hand, and *a posteriori* that gained at second hand. Now we have already seen that, as all our knowledge results from experience, no *a priori* knowledge is possible till a good foundation of *a posteriori* has been laid; in other words, no knowledge at first hand can be got till a foundation at second hand is laid. The names, then, are a contradiction in terms, as the latter precedes the former. Much better have called empirical knowledge *a priori*, and that said to be gained otherwise *a posteriori*, and at least the right order would have been observed. My impression is, however, that the term *a priori* has been used because those who believe it, believe more or less in innate knowledge; or certainly in powers of the mind to discover what could never be learnt by ex-

perience. Let us, then, briefly examine Kant, its great exponent, to find out how much of this so-called *a priori* knowledge we have. He says, in his introduction to his Critique of Pure Reason (p. 1),* "It is therefore a question which requires close investigation, and is not to be answered at first sight—whether there exists a knowledge altogether independent of experience, and even of all sensuous impressions. Knowledge of this kind is called *a priori*, in contradistinction to empirical knowledge, which has its sources *a posteriori*, that is, in experience." On page 2 he adds, "By the term knowledge *a priori*, therefore, we shall in the sequel understand, not such as is independent of this or that kind of experience, but such as is absolutely so of all experience. Opposed to this is empirical knowledge, or that which is possible only *a posteriori*, that is, through experience." On page 9 an instance is given of *a priori* knowledge: "Before all be it observed that proper mathematical propositions are always judgments *a priori*, and not empirical, because they carry along with them the conception of necessity, which cannot be given by experience. If this be demurred to, it matters not; I will then limit my assertion to pure mathematics, the very conception of which implies that it consists of knowledge altogether non-empirical and *a priori*."

It is a convenient way to get over a difficulty by saying, "If this be demurred to, it matters not; I will then limit my assertion to pure mathematics." Why does he drop mixed mathematics? Because he knew it would be demurred to and could easily be shown as above in the example 2 plus 2 equals 4, that mathematical knowledge was acquired by

means of experience. And now with reference to pure mathematics; because they are not considered in connection with matter directly, would they ever have been arrived at except from mixed mathematics, and can they arrive at correct conclusions, for example, in extension, which would not be true when applied to matter? What is magnitude or quantity considered abstractly, but an abstract consideration of something learnt empirically? As *a priori* knowledge according to the definition given above is to be absolutely independent of all experience, why not consider abstractly something never learnt, and which could not be learnt by experience, that is the absolutely unknown? But if this were attempted, to be intelligible it would have to be done in terms of the known, that is, of the empirical, when the consideration would not be absolutely independent of all experience. Though the student of pure mathematics, then, may abstract his mind as much as possible from matter, and not intend to apply his conclusions to matter; he can no more get rid of his empirical knowledge than he can of himself. The hypothesis demands what it can never get; a student able to work pure mathematics with no previous empirical knowledge.

But let us have another opinion, that of Schlegel, a fellow-countryman of Kant. He says, in his *Philosophy of Life* (p. 520-1)*: "The error most peculiar to the reason and which in its domain springs up almost indigenously, is one that has already been frequently mentioned—the phantom, viz., of the unconditional, or the delusion of absolute necessity. Now, all the data on which man's knowledge must be based have a triple source; they are

* Bohn's Trans

presented to him from within, from above, and from without. But the reason, which is the faculty of the logical connection of ideas, and of the logical necessity which rules in that connection, often quits this safe and solid ground of reality as presented to it in threefold experience, whether of revelation, and history, or of natural science, and resting entirely upon itself, tries to build exclusively on its own foundation. Whenever, therefore, it attempts this impossibility, it invariably copies the mathematical method of demonstration. And so there immediately springs up the false semblance of a necessary knowledge. As the faculty of logical thinking, the reason is at the same time a power of endless progressive development. To invent, however, to create, and to produce, is absolutely beyond its capacity. And it forfeits its own rights, whenever abandoning the pursuits most appropriate and assigned to it by nature, it usurps the prerogatives of an inventive and productive faculty, and thereby gives birth to the abortions of false metaphysical systems.

When, however, the firm basis and sure principle of some real and actual fact is once given, then the further scientific development, derivation and wider deduction from this first foundation may be carried illimitably onwards. There exists no ground at all why we should wish to set bounds to its advance. For were we to do so, we should perhaps afterwards discover that they had been drawn either too narrowly or too prematurely; as, indeed, has already been too often done in many a branch of mathematical science. And, even because it is exactly in mathematics that the illimitable pro-

cedure of scientific development manifests itself most signally and most brilliantly, and is at the same time not inconsistent with the greatest rigour of form and certainty, if only it originally sets out from a stable principle of actual reality; this science will furnish perhaps the most appropriate and pertinent illustration, and, indeed, the more so as the prejudice still subsists in men's minds that the first foundation of mathematical science is an original invention of the reason—a pure product of the internal intuitions of the intellect; and that the science stands quite apart from all other so-called sciences of experience. But in its first development and acquisition this is very far from being the case. If we could only observe in others, or could in our own case recall to mind, how long it is before a child can actually count three, or clearly separate from itself the external objects it perceives, or can learn to distinguish between any two objects, or between them and itself, we shall be forced to admit that the first basis of enumeration has an empirical origin; and that it is on such, consequently, that all mathematical science is built and founded. Geometrical lines and figures are properly nothing more than numbers, or the fundamental arithmetical notions fixed in space, and invested with a corporeal shape, and thereby rendered visible. It is, however, not unusual to regard the first principles of geometry—such as the point, the right line, the square and the triangle, out of which all else is compounded—as independent of experience, and existing absolutely in and by themselves. But in truth, these primary facts of geometry originally are, without exception, furnished by experience.

And even if, for the purposes of science, they are advanced in a degree of abstract purity and notional completeness, which they do not possess in the external world of sensible things, where they are always combined with more or less of gross admixture or of imperfection, this is only what is the case in exactly the same degree with the first principles of all other experimental sciences."

"Astronomy is one of the highest applications of mathematical science, which in it is carried to its highest limits of development. But here, too, the latter has grown together and in common with natural science. The complicated and elaborate calculations, the approximate hypothesis of mathematical astronomy are intimately interwoven and mixed up with manifold sidereal facts and observations. Properly, therefore, and rightly understood, mathematical science forms no exception to the general principle, that all knowledge is based upon experience, derived from inward, outward, or it may be higher perceptions."

What shall we say, too, of such things as goodness, wickedness, truth, etc.? Though we may think, talk, or write of goodness in the abstract, who has or ever could realise it without first knowing instances of it, that is, without learning it by experience? Who, again, knows of wickedness except by experience, either his own, or that of others? The spirit of opposition begins to manifest itself in us before we can talk, and some of the first lessons learnt in life are the doing of wrong. If, then, in after life a man write an essay on wickedness and treats it only in the abstract, drawing conclusions from his reasoning upon it, would any one say that

he had not acquired his knowledge empirically? In short then it appears to me that to call knowledge *a priori* because one can reason of it in the abstract is demanding of the mind more than its nature warrants. "It may also lead us a little towards the original of all our notions and knowledge, if we remark how great a dependence our words have on common sensible ideas; and how those which are made use of to stand for actions and notions quite removed from sense, have their rise from thence, and from obvious sensible ideas are transferred to more abstruse significations, and made to stand for ideas that come not under the cognizance of our senses; e.g., to imagine, apprehend, etc., are all words taken from the operations of sensible things, and applied to certain modes of thinking." (Locke, Hum. Un., Vol. II., Bk. 3, 5).

Again on page 8 (Critique of Pure Reason) we read: "That bodies are extended is not an empirical judgment, but a proposition which stands firm *a priori*." It is, of course, possible to think of this as a general proposition, not thinking of any particular body, but how do we arrive at that stage? Certainly by experience, for no other way is possible. The fact that bodies are extended is one of the first in life the child learns and realises, and when in later years one says "Bodies are extended," what can it be but a synthetical judgment founded upon the result of thousands of experiences? The child and youth has found during his life no body that is not extended, and consequently when he knows the meaning of the word extension, and is old enough to generalise, he says, "Bodies are extended." If asked how he knows, he would not

reply that he knew it from himself—*a priori*—but that it was the result of his experience; as he had never seen a body that had no extension, and could not imagine one. If, as Kant would seem to imply, the conditions which give the data upon which to form the judgment are a result of experience; and the judgment, though necessary, is not a result of experience; this means that causes may be empirical, and effects not. For the conditions are the cause, the judgment the effect. But the whole *raison d'être* of experience is to enable us to form judgments. The child learning to walk, falls and gets hurt. The unconscious judgment formed is, falls hurt. But this judgment is not knowledge, the experience, the pain gave that; and the judgment is the power of the mind exercised upon the whole circumstance, and expressed in the words, falls hurt. And herein it seems to me lies the crux of the whole matter. It is not difficult to mistake the exercise of the powers of the mind for so-called *a priori* knowledge. For what is a judgment? It can be only a completed act of judging. Now judging is not acquiring knowledge. It is only the exercising or having just exercised the power of the mind we call judgment. If asked to define this power, we say it is the calling forth from memory of a conclusion arrived at after comparing various propositions or experiences. The proposition then that "Bodies are extended" is not *a priori* knowledge so called, but is the conclusion arrived at and stored away in one's memory for future use, as the result of all one's experiences in connection with bodies. When asked then what one has to say of the extension of bodies, a man men-

tally refers instantaneously to his experience of bodies in that particular, that is, asks his memory; and up comes the reply, "Bodies are extended;" an answer as we have seen which can only be founded upon experience. To call this process *a priori* knowledge appears to me only to obscure common sense with words.

If we think of experience, too, with reference to so-called *a priori* and *a posteriori* knowledge, there is in reality no difference between them. If one says that a stone held four feet above the earth's surface will fall if unsupported, he is supposed to be stating an empirical proposition. His experience of matter has taught him that all bodies are attracted towards the earth. But if he is told that any two sides of a triangle are greater than the third side, and sets himself to prove it, he deals with letters and symbols learnt by experience, to demonstrate a fact which is true in experience as applied to matter. Pythagoras or Euclid, or whoever discovered this fact, only discovered a material truth by the advanced exercise of the same powers that another uses when he sees quartz rock to find gold. But both facts were waiting for a discoverer, not a creator. When Sir Isaac Newton saw the falling apple, and as a result of his thought discovered the law of gravitation, he did not create the power of gravitation; but neither did the first propounder of the twentieth proposition of the first book of Euclid create the fact therein proved to be discovered. Yet we are told, unsupported objects fall—the law of gravitation—is empirical knowledge; and the twentieth proposition is *a priori* knowledge, Sir W. Hamilton affirming the first, and Kant the second.

Let us take another proposition of Kant given on page 11:—"In all changes of the material world the quantity of matter remains unchanged," called "a pure *a priori*" proposition. Now if pure *a priori* knowledge is independent of all experience, how is it possible for such a proposition to be arrived at? It is simply not possible, except by conjecture; for every one who thinks of it must see that such a proposition in chemical physics could only be the outcome of numerous experiments in analysis and synthesis of matter; or of thought upon the changes observed in matter, in either case the outcome of experience.

Still another example (p. 23):—"Space is not a conception which has been derived from outward experiences. For in order that certain sensations may relate to something without me (that is to something which occupies a different part of space from that in which I am) in like manner, in order that I may represent them not merely as without of and near to each other, but also in separate places, the representation of space must already exist as a foundation."

Now I presume the second sentence in this quotation is intended for thinking men. Why then does "the representation of space already exist as a foundation?" Simply because it was learnt in infancy by experience. A babe in arms learns space by experience. Let the space of a room intervene between you and it, and hold a small attractive bauble in your hand. When the child sees it, it will stretch out its arm towards it, and close its hand plainly thinking it is going to grasp it. Later on he will creep to it, or walk to it, and realise that

he has it only when he feels it by his hand, and sees with his eyes that he grasps it. Later on if asked to change the position of a chair in a room he will not place it on another, but where there is space for it, where there is nothing.

From this it is evident that ideas of space and distance were got so early in life that no one can remember when; but so early that knowledge of them may be said to be intuitive. Kant then would appear to take this knowledge learnt entirely by experience, and from the second sentence in the quotation call it an *a priori* cognition, and endeavour to prove that space is not a conception derived from outward experience.

Lastly, let us take the proposition, "There is a God," which is affirmed to be *a priori* knowledge. To my thinking it stands upon exactly the same footing as the other things considered, that is, our belief in a Deity is a result of experience. Revelation tells us of Him, and, given a Deity, it is natural we should have a revelation. We could know nothing of Him otherwise. We could not leave the world to seek Him as our powers are limited. If we were to know Him then, He would have to come to us. Supposing Him to desire our good, it is probable He would come to us to teach us of Himself. Revelation tells us He did that, and that His voice and manifestations were heard and seen by mortals, or, in short, that the Deity was known by experience. This revelation we have, and where it is not, tradition would seem to have handed down statements of His existence.

But when apart from revelation a master mind—Plato for example—has believed in a Deity, it has

again resulted from experience. The man has learnt from experience the law of cause and effect, and reasoning back has come to the inevitable conclusion propounded by Mr. H. Spencer in his *First Principles*, that there must be some power which has made things as they are.

From the foregoing then it is plain that but for the existence of matter and our senses, no knowledge could have ever entered our minds; nor apart from our experiences could any deductions ever have been drawn from that knowledge; and consequently that there is no knowledge which is not directly or indirectly the result of our experience.

CHAPTER VIII.

KNOWLEDGE SYNTHETIC.

THERE is little doubt that *at first* all our knowledge is acquired synthetically. By this is meant that in the primary acquisition of knowledge, synthesis comes before analysis; or expressed logically, induction is anterior to deduction. Synthesis means the collection of parts into a whole.

Many do not realise this till they have thought it out, because so much of what we learn is acquired by the sense of sight. If you place a playing marble in the hand of a blind person who has never touched one before, and watch his action, he will tell you at once that it is a round stone. Now give him a wooden tripod flower stand two feet high, if he has never known one before; ask him what it is, and observe his actions. You will see that holding it in one hand, he passes the other over it until he has touched every part of it. Then he will describe its shape exactly to you, and probably ask what it is used for.

Now in action with his hands the blind man has done with the playing marble and flower stand precisely what a person does with his eyes, to whom these two articles are presented for the first time. In the playing marble the child of a few years' experience will see at once a round stone. If he observes the tripod from a distance of a few feet,

the complete image of the article falls at once upon the retina of his eyes; but a complete cognition of what it is does not immediately appear in thought. Very rapidly and unconsciously to himself his eyes run up one leg, noticing whether it is square or round, etc.; noticing its colour, its joints, if made of bamboo, or their absence if of other wood; noticing its length and thickness, etc.; and this is repeated with the other two legs in turn. He then observes how the legs are crossed and joined together, and attached to the round shelf to hold the flower pot; what colour, size and thickness it is, etc. Now each of these particulars as the eye leaves it the memory retains; and when the whole process of observation is over—and it may not have occupied a period in time of more than a second—the mind gathers up all the particulars from memory, puts them together into one whole, and a complete cognition of the tripod results. That the cognition was a correct one may be seen by at once removing the tripod from the room, and if the observer be an artist and not a child, he will easily reproduce the tripod on paper, putting in all the particulars.

So is it if the object is, as often happens, too large to be seen by the eye all at once, for example, St. Paul's Cathedral. It is so situated that it is not possible to behold it all from any one point. The observer must then see the west end, the north or south side, and the east end one after the other. In each case he notices the parts, mentally taking them together to make up each face, and after he has gone round it, has a cognition more or less complete of the whole.

In everything we see, this process is repeated;

parts are observed first until all are observed, then put together, and a complete cognition of the whole is realised. The alphabet is taught to children in this way. A good-sized letter is used, and the teacher of primary knowledge often not having thought any more of synthetical knowledge than the child she is teaching, naturally points out to the child that an A is like two sticks of equal length, joined together at the top, and connected in the middle by another stick. In other words the particular parts of the letter are described to the child to teach it to discriminate an A from all other letters; and so with all the rest. The shape of each becomes, by repetition so impressed upon the memory as never to be forgotten. Then the parts of letters are dropped, and whole letters are put together to make up words. After long practice in reading, the eye beginning at the first letter of a word so rapidly runs over all its letters, that it seems to take in the whole word at once. Indeed, we soon become unconscious of noticing the letters of a word in their order, for by practice one can easily read a page and a half of light reading in a minute.

More advanced knowledge is acquired in exactly the same way, as every subject is made up of parts. We learn these parts in their proper order one after another, until the whole subject is gone through and imprinted upon the memory. If it has been thoroughly mastered, any part required for use afterwards can instantly be called forth from the receptacles of this store-house. Euclid, for example, is made up of books, and each book of definitions and propositions; each one like a stone of a building resting on what went before, and in

turn giving a support to what follows. The student who masters each proposition in each book naturally masters the whole.

No cognition of a whole then can be realised until there has been a cognition of each of its parts; and the error of some in thinking that it could be has no doubt arisen from the fact—as noticed—that if we look at an object the whole of it falls at once upon the retina of the eye, provided the position of the object and the beholder permits it.

Analysis, the opposite of synthesis, naturally follows it. It is, as every one knows, the dividing up of wholes into their separate parts, whether of material things, or of complex cognitions of the mind. It requires, however, a higher mental training than synthesis, and is not therefore necessary in the first acquisition of knowledge, as synthesis is. By this is meant that no one could acquire any knowledge without the exercise of synthesis, whether consciously or unconsciously exercised; while much may be acquired before analysis is brought into exercise. Each is the correlative of the other. Once however a certain amount of knowledge is synthetically acquired, analytical knowledge may be brought into action. The illiterate husbandman easily learnt to break up clods of earth to receive the seeds of corn, and also to grind corn to make flour; and just as he had learnt what the clod and the corn were by synthesis, without knowing the meaning of the word, or, perhaps, never having heard it, so he learnt the necessity and effect of analysis, without having heard the word. In the higher subjects the two may be easily seen as in grammar. By synthesis, we learn to put together grammatically

simple and compound sentences, as all persons who have heard grammatical language from childhood can do to a certain extent before they know grammar; by analysis, we are taught to decompose these sentences into their constituent parts, which no one could ever do correctly naturally, but must be taught.

All familiar with Sir W. Hamilton's works will remember that he puts analysis before synthesis in the acquisition of knowledge. "The analytic process is chronologically first in the order of knowledge" (Logic, p. 339). In his *Metaphysics* (p. 71) he tells us that we get a cognition of a tree first by analysis and then by synthesis. But this appears to me to be mistaking the meaning of the word analysis. The word means to separate a thing into its component parts, with the idea that each part may be considered separately. This is the meaning he himself gives to the word. "It is manifest in general from the meaning of the words, that the term analysis can only be applied to the separation of a whole into its parts" (Logic, p. 338). If a teacher ask a pupil, add two and two, and what do you get? The answer is four—this is synthesis; but if he say, divide four into the two parts that compose it, one answer is, two and two—this is analysis. In other words addition and multiplication are instances of synthesis; resolution into, for example, factors, is analysis. But what child was ever taught resolution into factors before it had learnt the multiplication table? The thing would be impossible. Exactly the same is it with all the knowledge of common things a child learns. At first his whole attention is concentrated upon wholes by synthesis.

Ask a child of three years, pointing to his mother, "Who is this?" The reply is "Mother." Ask, "How do you know it is your mother?" and if a reply is given at all it will be, "I know it is my mother." Ask him what is a chair. The reply will be "Something to sit on." Say, "Describe a chair." He replies, "I don't know what you mean." Say, "Take the chair to pieces." He will reply, "You can't," meaning it is all one piece. Yet he knows a chair when he sees one. How then did he learn it? He learnt to distinguish it not by analysis, not by trying to take it to pieces, either materially or mentally—for as yet he knows nothing about its parts; but by its shape, that is, by the unconscious gathering into one of the appearance of its parts. He does not know that it is made of pieces put together, for as yet he does not look below the surface—analysis, just as when the next baby comes in reply to its question, "Where did it come from?" he is perfectly satisfied when told, "The doctor brought it." Yet we are told that analysis comes before synthesis, and that "synthesis without analysis is a false knowledge, that is no knowledge at all." One might as well say one does not know what water is because he cannot analyse it, or bread, or an apple, because he cannot analyse them. Water was not learnt in childhood by analysis, but by an unconscious combination of its qualities, that is, by synthesis. So in mental operations. Do not all illiterate people have complex ideas in their minds, thoughts they think naturally, but only the philosopher can analyse them? Thus it happens that the young man who has drunk water for years, when he studies chemistry learns to analyse it; that another

who has spoken his own language for years, learns to analyse sentences; and that another who has argued for years learns to detect fallacies in his own or his neighbour's arguments by logic. It is plain, therefore, that analysis requires a more advanced training than synthesis, but enough has, I think, been said to prove this, while complete knowledge, as far as it is possible, requires both.

CHAPTER IX.

SPACE.

BEFORE proceeding further it may be useful to discuss here those two subjects already so often discussed: Space and time.

Space may be defined as that which is not occupied by matter in a solid or liquid condition. Parts of it occupied by matter in a gaseous condition, as an empty room, may be put out of the question; as gaseous matter being so easily displaced—for example, the air—we usually treat it as if there were nothing present, as when we carry furniture into an empty room. All the while we know of the existence of the atmosphere, that it surrounds the earth, and by its extreme fluidity occupies all space not occupied by solids and liquids. We know of its impenetrability also, as shown by the fact that if all egress for the air were prevented, it would be absolutely impossible to force an exact or perfectly fitted ball into a cannon without bursting the gun by the air. Great force on the ball would compress the air to a certain extent, but when it was no longer compressible, to continue the pressure would burst the gun. All the same, however, for the purposes of what is to be said about space, for the reason already given, matter in a gaseous form may be left out of the definition.

Now if we go back to our definition we see at

once that space is nothing, and conversely that nothing is space. If we bear this in mind it will simplify much that has been written of space. For we learn of so-called space entirely by experience, in connection with matter and distance, or extension; and having to deal with it, and being able to bound portions of it, as by an empty house or room; we come insensibly to think of it as an existence or entity, like matter; and apply words to it that are used for created existences, as long, short, broad, deep, etc. And so we find writers bewildering the ordinary mind by writing of the infinity of space. "Space," they say, "is infinite. You cannot comprehend it because the finite cannot comprehend the infinite. To enable you to understand this, think of as much space as you can thousands of billions of miles away from the earth. Run an imaginary circle round this, and what is beyond your circumference? Space, boundless, limitless space," etc. One is reminded of Mr. Gilbert's clever words, but too often true of philosophical writing:—

"If this young man expresses himself in terms too deep for me,
Why what a very singularly deep young man this deep young man must be."

But now call space what it is, *nothing*, and the whole matter becomes much simpler. If asked what is outside the earth, and one replies, "Nothing till you come to moon, and after that nothing till you come to Mars," the idea seems natural enough, for that is what, having eyes and telescopes, we would expect to find outside the earth. If this whole so-called space, but really nothing, were filled up with matter, there would be no room for the sidereal system nor anything else.

It appears to me then just as profitable to be arguing, and reasoning, and lecturing in grandiose words about space and its limits as to spend our time talking of nothing. And as to understanding it, it appears to me just as easy to understand it, as to understand the word "nothing" which every child understands. Speaking of an empty room, you ask a child what is in it, and he replies, "Nothing," knowing what he means, and you knowing what he means. You ask an astronomer what lies between the Sun and Mercury, and he replies, "Space," and sets you meditating upon the boundlessness of space. But if he had said, "Nothing," it would have suddenly struck you that if no planet were nearer the Sun than Mercury, there would be nothing there. So much, however, has been written and spoken about the immensity of space, that many people think the Deity made it when He created the universe; that is, that He created nothing for the Universe to move in. But the whole immensity resolves itself into nothing, and our poor bewildered minds may be allowed to rest in peace when told that they cannot understand space, by replying that they understand perfectly well the meaning of the word "nothing;" and that as space is that, they may be said to be as able to understand it as to understand a sky when they see nothing. *To realise*, however, is a different matter, because it depends more or less on experience. A person who has never crossed the ocean finds it hard to realise what it is like, though he understands it perfectly well. Let him however once go to the Cape, or America, and after that he can realise very well what it would be like to go to China. So every one who understands what

nothing means, would find it hard to realise what it would be like to go on for ever in the nothing of so-called space, when once set in motion. An aeronaut who has made several long journeys might probably find an approach to it easier than others who have had no experience of unconscious movement in a balloon, but he could not fully do so.

There is then something to be said for those who have contended that we can understand the infinities of space and time, because we have had a certain amount of experience of each of them. Those who oppose it, however, are often beguiled by their own words. Sir W. Hamilton, for example, says in his *Logic* (p. 73), "Can we comprehend the possibility of infinite or unlimited space? To suppose this is a direct contradiction in terms; it is to comprehend the incomprehensible." But is this a direct contradiction in terms? Certainly not. It is, however, made to appear so by the same word being used. In his sentence the word "comprehend" means evidently, understand; while "incomprehensible" means that which has no limits. Let us substitute these words in the sentence and we get, It is to understand that which has no limits. There is no contradiction in terms here. Further the number of people who say we can understand infinity is larger than some might suppose. Our Lord said to the sister of Lazarus, "Whosoever liveth and believeth in Me shall never die;" and St. John says in his Revelation, "there shall be no more death." Do we understand this? Ask the first illiterate Christian believer you meet what the words mean, and he will reply that they mean the just shall live for ever. Tell him for ever is infinity, and he

cannot understand infinity; and he will respond, "Perhaps so, but I understand it well enough." To realise it, however, as observed, is quite different; but it may be remarked that in the chapter from Sir W. Hamilton's *Logic* in which the above quotation appears, he uses "comprehend," as synonymous with "conceive," "understand," and "realise." For example (p. 74), "It is manifest that we can no more realise the thought or conception of infinite unbounded or unlimited space," etc.

Again he says (p. 74), "Thus in Latin, *infinitum*; in Greek, *ἄπειρον*; in German, *unendlich*; in all of which original tongues the word expressive of the infinite, is only a negative expression of the finite or limited." The negative word then shows then that "the infinite is no object of thought; that we conceive it not in itself, but only in correlation and contrast to the finite." Can no negation, no negative then occupy our minds as an "object of thought"? It appears just as possible as the positive; but the difficulty of language comes in to make it appear not to be so. The most convenient way to express a negative is by its addition to a positive as in infinite; but if we take the word "finite" and use it generally, it conveys no more definite idea to the mind than the word "infinite." In the sentence, "He has written of the finite and the infinite," we have as definite an idea of the one as of the other. So we have in the sentence, "He spoke of the created and the uncreated." Where we have a word to express nothingness without a negative, like void or empty; there seems to be no difficulty in making it an object of thought, as, "the box was empty."

Again not all words used to express infinity in

either of the three tongues mentioned are negatives. In Latin, for example, we have *Æternitas*, or *sæcula sæculorum*; in Greek, we have *ἀεί*, or *Ὁ ἀεί χρόνος*, or *το αἰώνιον*; and in German, *ewig*, or *ewigkeit*; so that the argument from the negative instances loses its value.

Lastly, when we think of the great Infinite, the Deity, we are dealing with something very different to other infinities. They are matter or nothing, but He is infinite "power, wisdom and goodness." We can know and understand then just as much of Himself as He has chosen to reveal.

But although space is nothing as we have seen, yet as we have to do with it in our daily life we have to speak of it as if it were an entity, or created existence. This has to be done for our convenience and comfort, because as space surrounds the earth from its surface outwards, and the bodies of men and animals, trees, etc., and the works of man occupy space or room; we need to be able to measure space on the earth, as we measure distance or extension on its surface. For extension on the ground has to be measured. Man in his primeval state soon discovered that; so early, indeed, that no record of it could be preserved. Now distance, like space, is essentially a thing to be learned by experience; and as it is constantly needed, a unit of measurement for distance must have been fixed very early in the history of the human race. Naturally that unit was taken from the human body, and as ground for occupation by dwellings or for culture would first interest mankind, that which trod the ground the foot or pace would naturally again become the unit of measurement. These could be sub-divided or

multiplied as occasion required from inches to miles for distance; into what represented acres, or square miles for superficial measurement; into what represented cubic inches, feet, or yards, for the measurement of space or solids. We all have to do with the measurement of distances, and by practice can become tolerably expert in judging of their length.

Now it is exactly the same with space. If a man buy a plot of ground he pays for the extension, or size of the ground, but not for the space above it. This becomes his as a consequence of possessing the land, and he can ensure it to himself by walling in his land. He has then a confined portion of space, whose capacity he may know by measurement. So if he build a house, he wishes to have rooms of a certain size or space to contain plenty of air, and to hold articles of furniture. Portions of space are therefore dealt with constantly in daily life, and measured for length, breadth, and cubic capacity. Hence arises the paradox that we measure space or nothing, but yet by dealing with it as we do make it a concept of the mind. It becomes as easy then to think of it and realise it, as it is of solid or liquid matter; and we become aware of it in the same way by sight and touch. We can see that a room is empty, and see its size, but the blind man will learn the same by walking about with his hands extended till he meets an obstruction.

Direction like distance must be noticed in connection with space. Like distance it had an early origin, as it was an instant necessity. Words indicating it would soon come into use, as, up, down, forwards, backwards, right, left, etc. The four cardinal points would have an early origin also. But

direction is a relative word invented to make life comfortable and convenient in the world, because necessitated by our surroundings. There is, however, no direction in space. Imagine a man without sight to see sun or stars placed out in space away from any influence of gravitation, and all his ideas of direction would at once disappear. For in the boundless nothing where he is, there is no up or down. Up, which means from the earth, and down, which means towards it, lose their meaning where there is no earth to go from or towards, to advance or recede upon. So remove from our conception the solar system and the visible stars, if one could leave the earth and float away into the endless nothing, direction would cease to exist. Direction then is made necessary for us, and learnt only by the existence of matter which gives it to us. But turn all matter into a gaseous form and let one float alone in it, and there is no more direction for him than there is for a man at sea without a compass, who has not seen sun, moon, or stars for many days.

In this respect distance exactly resembles direction, in that it is made necessary and learnt only by the existence of matter. Place a man in space where he could see no created existence outside of himself, and distance, or extension measured, vanishes. Imagine him in motion like a balloon. Just as there would be no direction for him to go, so he would be conscious of no distance to traverse. He could not know whether he was at rest or in motion; and could never ascertain it if he saw no created thing, were he to live and move for thousands of years.

Space then with its accompaniments of direction

and distance, we learn only from the existence of matter. Apart from this they are nothing. But we learn them so early in life, and have so much to do with them day after day as we grow older, that it is almost impossible to abstract ourselves from them, or to think them out of existence. When we consider this it does not seem so hard to understand why some persons have considered our knowledge of them *a priori*, rather than that they become known to us only from the existence of matter, by means of our senses; in other words, that they are learnt by experience.



CHAPTER X.

TIME.

TIME is another of these uncreated existences which we use for our convenience and comfort. It also is learnt by experience, and would not be known to us but for the existence of matter. For what is time so called? Simply the measurement of motion or change. Take away matter and time disappears; or leave matter and destroy motion or change, and again time disappears.

The fact that earthly time would be a necessity for humanity is evident from the fact that it came into existence before man. "The evening and the morning were the first day." Let us leave out of our consideration for the present what the length of this day was, and imagine it twenty-four hours. When man came he found light and darkness, or in other words his day divided for him whether he would or no. He saw the apparent motion of the sun, moon and stars. That the rising of the sun brought light which remained while the sun apparently traversed the heavens, and disappeared with its setting. He soon found the necessity of having his day divided into smaller periods of time, and used some instrument, as, for example, a sun-dial, to effect this. But as this was no use at night, or on cloudy days, other instruments were necessary, and were invented, as the hour glass, till the invention of

the clock made us comfortable when at home, and the watch when abroad.

The motion of the moon appearing and disappearing at longer intervals would give rise to a division of time made up of many days, and so we get the month; while the motions of the stars, or recurrence of the seasons, would suggest the longer period made up of many months, which we call the year. The history of the formation of the calendar is a subject in itself, but it may be remarked in passing that what we call a year had a very different length among different nations, or at different periods in the world's history. This partially enables us to account for the enormous number of years people of old are recorded in the Bible to have lived. Plutarch says in his life of Numa, "Many, however, assert that the two months of January and February were added by Numa, whereas before they had reckoned but ten months in the year, as some barbarian nations had but three, and among the Greeks, the Arcadians four, and the Arcarnanians six. The Egyptian year they tell us at first consisted only of one month, afterwards of four; and therefore, though they inhabit a new country, they seem to be a very ancient people, and reckon in their chronology an incredible number of years, because they account months for years." Besides this, reference need only be made in passing to what advanced science teaches of the few hours the earth took to revolve on its axis for a long period of time after it first came into existence as a molten mass.

Time is a great convenience. By it we can record motion in earth or sky, or change in matter, that is, in ourselves and our environment. By it we num-

ber our days ; make our appointments ; regulate our work and rest. In short, it enters into our whole life, so that it is difficult to conceive how we could live without it. By it, too, we can arrive at some conclusion concerning the age of the world ; and this has set men thinking and speculating upon infinity of time past, and infinity to come. And so like space we have infinite, endless, boundless time or eternity. And we are told of it as of space, that the finite mind cannot comprehend the infinite, and to prove it we are asked to think of one hundred millions of years ago, and then triumphantly asked, what was before that. The question may be answered as it was with space, "Nothing." Time began for us with the world. But it is a purely relative conception. We learn time as it is divided on the earth by the motions of the heavenly bodies, that is we know time as *we* know it. But the grilled inhabitants of Mercury, if any, have a short year ; since their earth revolves round the sun in some eighty-eight days, or not quite three months. On the other hand the Kamtchatkan inhabitant of Herschell has a rather long year, since it takes his earth 164 of our years to revolve round the sun.

If then we imagine an inhabitant of a world where there is no perceptible revolution of anything, or no change in anything, where it is perpetual day, where life is what we call eternal, where there is no weariness, or rest needed, etc., it becomes easy to imagine that such beings would have no conception of time at all. That the word would be unknown with all its accompaniments of sooner or later, before or after, past and future, etc., which are associated with our knowledge and use of time. Such a being

must the great eternal Deity be, and consequently with Him is no time, or time is nothing. St. Peter appears to have mastered this fact, though described as an unlearned and ignorant man, for he writes, "One day is with the Lord as a thousand years, and a thousand years as one day."

Plato's notion of time, one of the most intelligent of heathen antiquity, was as follows:—"Again time is the image of eternity; eternity subsists for ever; but the motion of the heaven is time; for day and night and the months, and all such divisions are parts of time, on which account there could be no such thing as time apart from the nature of the world; for time existed contemporaneously and simultaneously with the world. And it was with reference to time that the sun and the moon and the planets were made; and it was in order that the number of the seasons might be manifest, and that the animals might partake of number that God kindled the light of the sun; and that the moon was above the circle of the earth; and that the sun was next to it, and in the still higher circles were the planets." (Dio. Laert. Plato, Bohn's Trans.)

With us time is the great destroyer. It carries us on from childhood to youth, youth to manhood, old age, and the grave, and then resolves us into our former elements of earth. So is it with all the works of man. They rise, have their day, and pass away often so effectually, that like ancient Babylon in all its grandeur, disputes take place as to where the sites of populous cities once stood. Even those who have attempted to defy time have been conquered by it. The mighty Egyptian King, who built the great pyramid, built a monument to last for ever,

had his body and that of his wife embalmed to last for ever, and each concealed in it in a separate chamber. The pyramid was built after the best mathematical design to resist nature, of the best stone, with the entrance so carefully hidden that it was not found for nearly 3,000 years. But it was found, the bodies were carried away, visitors in thousands have entered the chambers, and are wearing away the stones of the passages that lead to them, while as I also noticed when there, the exterior of the pyramid itself shows signs of decay by the hand of man and the ravages of time.

Whether in the future state, should we be fortunate enough to get it, our mundane notions of time will remain with us, it is difficult to say and useless to speculate. The little we can gather of that state leads us to the conclusion that the laws prevailing in it are quite different to those made for our advantage here. Mortality, for example, is a law of existence here; immortality will be the law there. Marriage is a necessary law here for the continuance of the race; there will be none there. Here "man is born to trouble as the sparks fly upward," that is, as a natural law; there, there will be none.

We would imagine that beings formerly accustomed to time and its measurement when placed in a position where there is nothing to measure it, where no change takes place in themselves or others, would gradually lose their conception of it. In our own climate of England, where the weather is so variable, it is the first topic of conversation when people meet; but Englishmen when resident long in rainless countries soon cease to think or speak much of it, as one day is just like the last. They are con-

sequently surprised when the latest arrival speaks of a fine day. Just so we would think will it then become with death, sorrow, pain, weariness, etc., and time. The conception of them, if remembered at all, would gradually fade out of existence imperceptibly to ourselves. As said above, however, this can only be a matter of conjecture.

CHAPTER XI.

CONSCIOUSNESS.

CONSCIOUSNESS is that power of the mind by which we know that we exist. This, however, is not a definition that embraces all forms of consciousness. The very young child has a consciousness, though no knowledge of its existence. It is unconscious when asleep, and conscious when awake. Again it may lose its little ignorant consciousness when delirious, as in cerebral meningitis; and when this occurs in a child too young to speak, only the physician can pronounce upon it with certainty. For strange to say, when delirious it will do things in advance of its age, as, for example, feed from a spoon, which it will positively refuse to do when the delirium passes away. But when well, it is an easy matter to see when it is conscious; and the intelligent observer will notice its eyes wandering about, attracted by various objects, which unconsciously to it are making an indelible impression on the memory, to be recalled and used in future years. Later on will be seen the wondering stare, when thought has begun in its mind, which says as plainly as words, "What does it all mean?" Its first lessons of life then are learnt unconsciously to itself, when it is conscious; and as consciousness is necessary for the acquisition of knowledge, could only be learnt then.

Again there is another kind of consciousness, that of insanity. The hopelessly insane man can sleep and become unconscious, and awake and become conscious, and yet have no knowledge of his own existence. Indeed, while conscious, his insanity may take the form of lycanthropy, when he imagines himself to be some other animal than a man, like Nebuchadnezzar. Of the consciousness of idiocy it is not necessary to speak, since it resembles that of insanity.

From these two cases we can learn a few facts. From that of the infant we learn that consciousness exists before thought, and that it is an absolute necessity for the incipient growth of thought, as well as for its maturity. Though the child have all its senses, without consciousness it could never learn anything. But now comes a strange fact, which is that after the brain has learned to think, that is, when we can speak of the mind, consciousness is not necessary for thought. The crutch the mind first needed to learn to think, after having learned, it may in some states throw away. We see this in dreams. The sleeper is unconscious, yet thought never ceases, and to this sleeping thought we give the name of dreams. And this thought can be very real, giving sensations of pain, pleasure, fear, horror, etc., so strong as to affect the body.

We see it also in somnambulism. Here the thoughts of the unconscious girl, for example, are strong enough to influence through the will the muscles of the body, and cause some actions of conscious waking life. Some of the bodily powers seem at times to be abnormally strengthened during this state; while things that made an unconscious im-

pression on the memory, which are not known or remembered in waking hours, are spoken of to the amazement of beholders, as, for example, a somnambulist speaking in a foreign language, unknown and never consciously learnt during waking hours. Again it is seen in some forms of trance when there is no consciousness, but speech shows that the thoughts are busy.

Further we see that consciousness is not necessary for thought, in perhaps the strongest case of all, that of unconscious cerebration. We all know what this means. If a problem has been vexing the mind, or making the opinion vacillating, the common expression is that it is good to sleep upon it. Besides giving time for a change of feelings, numerous authentic cases exist where one has done so; and awaked in the morning with a perfectly settled view of the matter. Mathematicians have unconsciously solved problems in their sleep, which they did not find the solution of when awake.

From the ravings of the delirious patient we can learn, as from the grotesque imaginings of dreams, that thoughts may exist and be intensely distorted during unconsciousness.

Consciousness then is not necessary for thought to act, whether in an ordinary or extraordinary way.

From the insane we can learn that the most distorted thoughts and imaginings can exist in the mind, while consciousness is present, and yet the mind have no control over these thoughts. In some forms of insanity the mind seems to be abnormally active. There may be a connection in the thoughts which is not given in speech, and as speech is often

rapid, the mind of the insane man seems to fly from one subject to another, which apparently has no connection with it. There is, probably, however, a rapid connection of the thoughts over which no control can be exercised, as in dreams. When speech is present the thoughts appear disjointed, because the connecting links are not given.

There is still another kind of unconscious thought, that of the opium eater. This is a case where a man, unhappy while conscious, and desiring to be happy while unconscious, partakes of a drug that will answer the double purpose of making him unconscious, and giving him pleasant dreams. Needless to say it becomes one of the most degraded forms of dissipation. The slave of opium, like that of alcohol, loses in time all power of will resistance to his particular craving and overmastering desire; until with shattered health he becomes useless to himself, useless to serve any good purpose in the world, and a burden upon his friends, or upon the state.

Now in all these cases we find one thing absent. This is what we call the power to control or direct the thoughts.

In the very young infant conscious thought proper has not yet begun, so that thought control would necessarily be absent. In the insane and idiotic it is absent also, but in degrees proportionate to the insanity. The hopelessly insane man will say whatever comes into his head, whether absurd, shameful, or profane. Ask him to learn a small task from a book, and you see at once that control of thought, with its consequent concentration of thought, is out of the question. But as there are

degrees of insanity, as of most other things, partial control of thought may be found in some instances.

In the unconsciousness of sleep it is evident that control of the thoughts is absent. The consequence is that the mind wanders along in thoughts suggested by the events of daily life, or by worries, anxieties, or pleasures, or business, or profession, etc. So it is with somnambulism, although a fixed idea may be present to do something or go somewhere. The unconscious thoughts of the sleeper control his movements, but there is no proper control of the thoughts; or these movements would be stopped, and the walking dreamer return to his comfortable and safe bed. The same is the case in trance.

With reference to unconscious cerebration, as it is called, that is the mental powers actually working while their owner sleeps, the explanation would seem to be that the mind during consciousness has been so long and so strongly concentrated upon a certain question, or problem, as the case may be, as not to be able to cease working after the unconsciousness of sleep begins; just as an engine after steam has been shut off will run some distance upon the metals by its own momentum. The result may or may not be a solution of the problem. For we all must have noticed that the mind is like the retina of the eye. Expose this to the sun as noticed above, and the solar image cannot be got rid of for some moments, no matter where we look. After continued concentration the mind of many people is exactly the same. When as a young man, intensely interested in chess, I used often to play from eight o'clock till one in the morning, it was not the least use expecting to sleep upon going to bed.

Each game would be played over again in the dark, and what ought to have been done noted with an unfailing accuracy. The only resource for sleep was, naturally, to forcibly change the thoughts, which a bedside lamp and Macaulay's Essays soon effected. A general rule was consequently evolved; that if after an evening's intense concentration upon some subject one desires to sleep, read about something else after retiring.

From the above considerations then, we can conclude with certainty that consciousness (of course, sane) is necessary for the control of the thoughts. It is thus seen to be the great substratum or foundation of all useful thought; because no thoughts uncontrolled can accomplish work, and control is not possible without consciousness. By consciousness is meant, of course, full waking consciousness, when all the faculties and capacities of the mind are capable of work. For it may be well to notice here that unconsciousness, like everything connected with the mind, exists in degrees from the absolute to the partial. A dozing man may be conscious of what is transpiring around him in the room. Another can by practice attain to waking at certain times; another to wake at certain sounds and no others. Another, like the miller who slept in his noisy mill, to wake if the machinery accidentally stopped. All this, however, does not disprove the statement that for the full control and exercise of thought, consciousness, that power of the mind by which we know that we exist, is necessary.

It may be well here to notice another state of thought, in connection with consciousness not noticed above. This is what is called reverie, or

conscious dreaming. It is a pleasant form of dissipation to the careless, idle, and lazy; and consists of sitting or lying down, and either allowing the thoughts to wander where they will, or of giving them a start upon some pleasant path which they follow afterwards of their own accord. As in dreams the thoughts are uncontrolled. Rather worse than this, they are often unconsciously influenced by our desires; like the old story of the Russian pedlar of crockery, who, sitting down to rest near the brow of a hill, and placing his basket at his feet, began to meditate upon how rich he would grow. He would make a profit upon this basketful, buy others, continually making a profit; rise to a shop and stores, amass enormous wealth, and have the Czar's minister of State come to supplicate his hand for his daughter, when he would spurn him with his foot. Unconsciously kicking out, he landed the foundation of his hopes over the hill, smashing his wares to pieces. So those who spend hours in reverie by having their thoughts so constantly uncontrolled while conscious, gradually weaken their power to control them; until strength of concentration, that most necessary requisite for success, is well nigh gone. Valuable time, too, is irrecoverably lost—as time wasted is time lost—which might have been used in mental or physical exertion; while the temper becomes more and more soured by the constant and injurious comparison of common-place, everyday surroundings with what we would like. The victim to the habit of useless reverie thus becomes gradually unfitted for the demands of a successful career. “The dreamer retires to his apartments, shuts out the cares and interruptions of mankind

and abandons himself to his own fancy. New worlds rise up before him, one image is followed by another, and a long succession of delights dances around him. He is at last called back to life by nature, or by custom, and enters peevish into society because he cannot model it to his own will. He returns from his idle excursions with the asperity, though not with the knowledge, of a student; and hastens again to the same felicity with the eagerness of a man bent upon some favourite science. The infatuation strengthens by degrees, and like the poison of opiates weakens his powers without any external symptom of malignity." (Rambler II., 89).

From what has been said of thought in connection with consciousness, it is plain that the brain when in its normal state never stops working, whether consciousness is present or not; that is, we are always thinking. Inhaling chloroform apparently does not stop thought, while the patient is sufficiently unconscious not to feel the pain of an operation; for many talk incoherently all the time. There is one state, however, in which thought must almost cease while life is still present; and this is fainting. Now in fainting there is an absence of blood from the head, consequently no thoughts could be present, as the brain must cease working. If the reader has ever fainted he will recollect that when he recovered consciousness he was not dreaming—my own experience. His first thoughts come as consciousness begins to return. It may be interesting in this connection to give the remarkable story told by Plato in his "Republic" of a man who was rendered unconscious by a wound on the field of battle. "But, however, I will not, said I, tell you the apologue of Alcimus, but

that indeed of a brave man, Erus, the son of Armenius, by descent a Pamphylian; who happening on a time to die in battle, when the dead were on the tenth day carried off already all corrupted, he was taken up sound; and being carried home, as he was about to be buried on the twelfth day, when laid on the funeral pile he revived, and being revived he told what he saw in the other state, and said; that after his soul went out, it went with many others; and that they came to a certain region of spirits where there were two gulfs in the earth near to one another; and other two openings in the heavens, opposite to them; and that the judges sat between them. And when they give judgment they commanded the just to go to the right hand, and upwards through the heaven, fixing before them the accounts of the judgment pronounced; but the unjust they commanded to the left, and downwards; and these likewise had behind them the accounts of all they had done." (Book X.)

Consciousness was defined above as that power of the mind by which we know that we exist. This tells us what consciousness is, but further than that we cannot go. If asked how it is that we are conscious, we are at once landed again in the difficulty given above, of explaining what thought is, in its essence. This we cannot do. We can say that in the cavity of the skull there exists a mass of whitish grey matter, which is the origin of the delicate ramification of nerves which permeates the whole body. That the blood circulates in large quantities through this mass of matter, and that when a nerve point at the end of a finger touches extraneous matter a sensation is at once produced in the mass of grey matter; which sensation, because we have life,

is transmuted into thought; and that we are aware of this because we are conscious. But we are no nearer now to understanding what consciousness is in its essence than we were before. We know that we are conscious, and that is all. Everyone can understand this, but explanation is as yet impossible.

If a conjecture may be hazarded I am disposed to think, and have for many years, that future research will in some way connect the transmutation of sensations upon the brain into what we call thought and consciousness with some form of electricity. Comparatively lately this has been discovered to be an active nervous agent, and the wonder is that it was not discovered earlier, the analogy was so striking.

Speed.—When the proper connection is made, a man holding long wires at a distance from an electric battery is instantaneously given a shock. In the same way the nerves act. Touch the end of the great toe, the point of the body furthest away from the brain, with the point of a pin, and instantaneously the shock is received by the brain.

The sense perception is communicated along a nerve, that is, a special conducting channel, with an insulating sheath, just as electricity is transmitted through a wire.

By means of dissection and electricity the portions of the brain controlling the motions of their own special parts of the body have been ascertained. As every one knows, the experimenter by applying electricity to the different portions of the brain can produce an action in any of the muscles of the dead body he wishes to see move. Now if the brain is touched with the hand, or cut with a knife, no mus-

cular motion is produced in the body. Plainly, then, electricity applied to the brain affects it in death in the same way thought and will power affected it in life, and sent the same kind of message to the muscles. The inference then is obvious that will and electricity are alike in their action upon the muscles, when operating in the brain; and this would appear to be a good ground for conjecture that thought and some form of electricity in the brain may be found to be nearly allied.

The discovery of the transmutation of sensation into thought, however, and what consciousness is in its essence, can never be made by the man who is a metaphysician only. He can but speculate subjectively, because he does not objectively experiment upon the brain. It will have to lie with the metaphysician, who is also a medical man and an electrician, and so fitted in every way to be an experimenter. The recent astonishing advances of the century in electrical discovery, especially that of transmitting pictures by electricity, would seem to place us within measurable distance of at length ascertaining this knowledge, which the world will, in my opinion, certainly possess some time in the future.

Locke makes our identity depend upon consciousness. His expression is "Consciousness makes the same person." This seems to me an unfortunate expression, inasmuch as our identity depends upon consciousness only in the same way that all our other knowledge depends upon it. Consciousness, as we have seen, is the substratum, the foundation of all knowledge. Without it we could know nothing of our own identity, but neither could we

know anything of Greek; yet consciousness is not the Greek language. It appears to me that memory has much more to do with our identity directly. Consequently if asked how one is aware of his own identity, "boy and man," he would probably reply that he knew it, not because he was conscious of it (which means only, I know it because I know it), but because he could remember he was who he is, all the way back to infancy; that he remembered his experiences all through the years of childhood, youth, and manhood up to the present time; Reid to the contrary notwithstanding.

CHAPTER XII.

THOUGHT.

WE have now arrived at this position: that our own existence being postulated, there are two primary certainties, the existence of matter, and the infallibility of the senses, in making our minds acquainted with that matter. That for this knowledge, as for all knowledge, consciousness is a necessity; and that without consciousness there can be no control of our thoughts. This means that matter, mind, senses and consciousness are the necessary foundations of knowledge and thought. It may be remarked in passing that knowledge (meaning here sensation), is placed before thought, because in the order of nature it precedes thought. Let us then, in our examination into the origin of thought, notice the next requisites, perception and its result, sensation.

Perception is generally defined to be the act of obtaining knowledge through the senses. I wish, however, to limit the word to the contact of sense with matter. When, for example, I touch a pen or desk with the tip of my finger, the tactile nerves receive a slight shock, which is instantly conveyed to the brain. Now perception takes place at the point of contact, that is, the exterior end of the nerve. It is much to be wished that we had another word to express this. A word was tried some time

ago, the verb "to sensate." This would be a useful and expressive word, but for some reason it did not come into general use, and consequently one does not care to employ it. I will then keep to the word "perception," although this word has been used very indefinitely. Locke, for example, thus defines it: "Perception, as it is the first faculty of the mind exercised about her ideas, so it is the first and simplest idea we have from reflection." From what follows he would appear to use the word to combine in itself a sense perception, and its consequent sensation, or effect upon the mind.

A little reflection, however, will show us at once, that a perception by a sense is one thing, and its reception by the mind, sensation, is another thing. It is true that the whole takes place so quickly it appears to be but one operation. When a man touches an object, he is instantaneously conscious that he has done so. The message given by perception flies through the arm and to the brain so rapidly, that we can notice no appreciable time occupied by the transmission. Yet a fraction of a second, infinitesimally small, must have been occupied; as the sense used, whichever it be, bears in a way the same relation to the brain, as a telephone clerk at, say, Charing Cross, does to another in the head office in London. Perception then, that is contact of a sense with matter, is one part of an operation at one end of a nerve; sensation, or its effect upon the brain, causing motion of a certain portion of it, is the other part of the same operation. The distance the sense is from the brain, the connecting nerves, and the time occupied in the transmission of the message show this.

Further, that perception and sensation are two different things, may be seen from the following. Formerly it was thought that the nerves of the senses could not act independently of the brain. Accordingly, if the foot was touched with a red-hot iron, it was thought that the nerves sent a message to the brain, and the brain immediately sent back a reply. The pain in the foot, however, could not be felt till the reply had come back from the brain. More research, however, has entirely superseded this notion. It is now known that the nerves act automatically at the point of contact with matter, and send a message to the brain at once that they are, for example, injured. Every one can see this for himself. Most of us, I presume, have at some time or other killed a snake by cutting off its head with a blow of a garden hoe. After the head with the brain is gone, the body of course, though it suffer pain, cannot be conscious of it. The only member that can be conscious, the head, is separated. Now take a penknife and prick the headless body with the point of a blade. The body will squirm and writhe in pain after each prick. This shows plainly that when nerves shrink from pain, they do it automatically or independently of the brain. So motions that have been practised so long as to be automatic, may be for a short time continued, though the head is removed. A strong blue-bottle fly with an uninjured body, deprived of its head, will fly for some time. That the nerves then act at the point of contact independently of the brain, is the strongest reason why perception and sensation are the first and second parts of the same operation. Remembering this then, let us try to see how thought begins in the mind.

It is not necessary to consider the infant before birth, because it is actually a part of the mother, just like an internal organ. So much is it a part, that what strongly agitates the mother, will disturb the child; while a sudden and horrible fright affecting the mother, may disfigure or injure the child for life, to my own personal knowledge. The child, then, before birth, can have no thoughts or appreciable sensations. But when it comes into the world, and begins life for itself, it is at once brought into contact with its environment. Its body is washed, for example. Now the child does not know this, but the nerves of the body feel the water, send the message of perception to the brain, where a sensation is produced unconsciously to the child. but none the less real. This sensation affects the memory; so that later on, when the child is old enough to consciously see water and feel it when it is put into a bath, a familiar mental sensation results, a sensation experienced before knowing consciousness.

Take another case referred to before. The nerves on the palm of a child's hand, and on the inner surface of the fingers, act automatically. When the inside of the child's hand is touched with a small object, the little fingers close upon it. Again a sensation is produced in the mind. Before a child then, has consciousness enough to know that it is, and that there are things outside of itself, multitudes of sensations have been impressed upon the mind, resulting from its perceptions. As consciousness strengthens, it begins mentally to separate these sensations, as, for example, the prick of a pin, from food. It begins to use its eyes, and to learn the

causes that produce in it the effects of pain and pleasure; avoiding the one, and seeking the other. Soon it begins to recognise them, and now they become actual concepts of thought, imprinted upon the memory, and so familiar, when seen time after time.

And now begins that most necessary foundation for acquiring knowledge, thought control. This can be seen after the child has begun to notice, when the mother chirrups to it with loving baby words. The child fixes its eyes upon her face, and is trying to understand what it means. Memory comes in to help, and the familiar sounds produce a sensation of pleasure, which is shown to the mother by the priceless smile of first recognition.

After this education in cognitions goes on rapidly. Food is the child's highest conscious gratification, so that as every mother knows, it soon learns where its food comes from. Consequently, to the child's first language—a cry—when suffering from hunger, is added gesticulation; the hands or face pressed against the mother's bosom, or pulling at the front of her dress. No occasion for thought control is here, for desire influences the mind so strongly that nothing short of food will ease the pain of body, and so quiet the mind. When a familiar toy is given to the child, its ears are attracted by the bells and its eyes by the bright colours. Its first thought is that it must be food, and so it goes to the mouth. But taste rejects it, and gradually the notion of pleasure apart from food is begotten in the mind. It soon learns to recognise the toy by the aid of memory, and this involves distinguishing it from other things.

From these instances we can see the whole process, that each thing, food, light, darkness, household articles, toys, pets, clothing, relatives, etc., is learned one after the other; and unconsciously stored away in the memory to be recognized—that *re*, again; cognized, distinguished in thought—when seen.

When language comes, and a name is given to each, the cognition of each becomes still more definitely imprinted upon the mind; so much so that the name can at once present to the mind a cognition (called by some an image) of the article or person named. All this has helped to strengthen thought control, for each could be learnt, only by the thoughts dwelling upon it for a short space, every time it is cognized, until it can be instantly recognized.

After this comes the beginning of education, of which the acquiring of every fact tends to strengthen thought control. The child is taught the letters of the alphabet. Each is presented to its eyes and described, so that it may be remembered and known. With figures and words it is the same. After these are mastered, thought control is helped by interesting little tales, and the primary facts of other subjects; till, after a time, it begins to pass into concentration of thought, and the boy or girl is put in the way of becoming a student.

Concentration is the fixing the powers of the mind upon some subject to be learnt or considered, by abstracting the thoughts from every other subject. This is not always an easy thing to do, but it must be successfully practised if knowledge is to be acquired. It is not easy, because the thoughts have a tendency to wander to what we like. This is the

most strongly distracting subject with which we have to deal, because liking involves desire; and so every one knows, when the mind is idle, no control of thought is necessary to make us think of our desires or longings. The man who is fond of amusement of a certain kind, finds it hard to work while he knows his fellow students or friends are at that moment enjoying this very amusement. The man who has a hobby, finds it hard to work when he would rather be riding his hobby. The man who is in love, is distracted in his working hours by seeing an image of the loved one on every page he is trying to master. Or the distracting thoughts may arise from fear. Some mishap is impending over him or his family, some sword of Damocles, which may fall at any moment. Or again it may arise from affliction or grief, etc. Every one who has cultivated concentration of thought, has had to drive from his mind, at different times, some one or more of these, well knowing that no great advance is possible without concentration.

Some subjects are specially useful to strengthen concentration. The game of chess is certainly one of the strongest of them. All who have played or seen it played, must have noticed how intensely present are the signs of strong concentration. The head is filled with blood, the feet are often cold, the oblivion to what is transpiring around nearly absolute; a silence from conversation made more striking by the intense earnestness with which a word connected with the game is occasionally uttered, etc., are familiar enough. Or, again, mathematical problems cultivate strong concentration, for the simple reason that difficult ones cannot be solved

without it. Philosophical thought also strengthens it, so much so that when a deep thinker is wrapped in thought, he becomes so oblivious as not to hear when he is addressed by name; having sometimes to be shaken into a knowledge that he is wanted. Public speaking, too, strengthens it, for when one has prepared a line of thought upon which to speak, great concentration is required to follow it when no notes or *aides mémoire* are used. Later, when one has become a practised speaker or debater, we see the interesting phenomenon of interruptions helping the speaker. The mind following its train of thought, and keenly alive at the same time to what is transpiring around, will take the interruption, answer it with a sudden brilliant repartee, to the discomfiture of the interrupter; or use it as an argument to strengthen the side of the cause he is advocating.

Such is the value of concentration, that some one has defined genius to be good average abilities, joined to a highly cultivated power of concentration. All familiar with the biographies of great thinkers, are aware that strong powers of concentration have been one of the chief characteristics of their minds. No one, consequently, can ever hope to accomplish much in the world of thought without it, no matter how hard he may try. Indeed, it has happened that some of the most laborious of students have accomplished much less than others, who did not work so hard; because they had never bent their energies to cultivate this, while the others had done so.

We have thus, after showing that thought arises by means of perception and sensation, tried to trace its origin and progress upon the first faint glim-

merings of cognitions, to the definite ones resulting from thought control; until by an ever broadening education, is reached the advanced thought of powerful concentration, resulting in the productions of genius. Let us now pass on to notice the next faculty or power of the mind necessary for the acquisition of knowledge, memory.

CHAPTER XIII.

THE MEMORY.

THE memory is the great retentive faculty. It retains a knowledge of the sensations produced upon the brain, and keeps them stored away for future use; just as a large wholesale merchant may have his stores filled with different kinds of goods to be brought out as occasion requires.

Since the creation of the world untold millions of insects and birds have flown through the air, but left no path behind them; untold millions of fishes have swum in the waters of the seas, and hundreds of thousands of ships have passed upon them, leaving no track which could remain permanently for another to follow. This is what the human mind would be like if we had no memory. A sense perception would cause a sensation upon the brain to be turned into an evanescent thought; but the moment the sensation and its consequent thought ceased, no more trace would remain in the mind than the path of a bird through the air.

From this it will at once be seen that memory is as absolutely necessary for the acquisition of knowledge as retention of money is for that of wealth. Give a poor man a shilling, and if he spend it at once, after it is gone he is exactly where he was before. So if a child had no memory, it could never learn whence its food came, or what it tasted like.

If attracted by a fire (supposing one possible among a humanity devoid of memory), and it put its hand in it to seize the flame; after the pain ceased and the wound healed, it could have no recollection of the circumstance, and, consequently, at the next opportunity would do the same thing again. For the building up of knowledge in the mind is like the building of a house. But no man could ever build a house who continuously laid a stone of the foundation one moment, and took it away the next. For in the mind each fact learnt in infancy and onwards, and retained in the memory, is like a stone in a building resting on one below and affording a support for those above, until all the knowledge acquired makes a structure like a reversed cone, ever widening and growing higher, but never completed. Without memory humanity and animals would be (if they were possible at all) races of speechless creatures, as helpless as idiots. A wise Providence, then, as in the case of man, has endowed the brute creation with memory. This can be seen not only by a dog's recognition of his master, for example, but by the simplest actions of their daily life. A dog knows how to stand or run by memory; he knows a bark is that of another dog by memory; and he knows his own home and kennel by the same way.

What is memory? How are sensations upon the brain, which have or have not been transmuted into waking thought, retained in the mind to be called back into consciousness in after life, with or without the action of the will? Some have thought that it is in this way. They held that a sensation made upon the brain actually made a slight change in the

substance of the part of the brain affected. This change was permanent, and might be deepened by sensations repeated. Thus, if one touched an object and found it hard, a sensation was produced on the brain by the message of sense perception. This sensation produced the thought expressed by the words, "It is hard." They held that the second time one touched a hard substance, the same sense perception took place, was carried along the same chain of nerves to the same spot in the brain; a second sensation was produced there, exactly, we will say, like the first; and again transmuted into the thought expressed by the words, "It is hard." They added that the operation took place easier the second time than the first, easier the third time than the second, the fourth time than the third, and so on; the shock of the touch upon the object always taking the direction of least resistance, the same because traversed before. Thus it was that one remembered that the object touched was hard. How general this belief was may be seen from the expressions in common use:—"To make an impression on the mind;" "An indelible impression on the mind;" "In youth the mind is plastic, and easily impressed;" "First impressions are lasting," etc.

Now this explanation was ingenious, and natural; but it had this initial difficulty to surmount, which is that it made the memory finite, whereas there is nothing to lead us to suppose that the memory, like our powers for the acquisition of knowledge, is not infinite. If men lived ten times as long as now, their memories would extend over ten times its present period; and if they lived for ever, their memory would, of course, be infinite. Further, in the allotted

space of seventy or eighty years, if we take a man like the late Mr. Gladstone, or a woman like Her Most Gracious Majesty the Queen, of great natural abilities, who had had the best opportunities for education, who has lived the most busy and active life possible, knowing many languages, mixed up with the most diverse affairs, and meeting an enormous number of people; they must have had thousands more of sensations upon the brain, and thousands of more things to remember than, for example, an illiterate fisherman of eighty who, we will suppose, never left his native village. Yet the memories of these busy people are not worse, but rather better than that of the elderly fisherman, and do not fail before his. On the contrary they generally last longer. Where then are we to place the limits of thought and memory but in infinity, if there was no senile decay?

This having been premised, if then we had a permanent change made in the substance of the brain for each sensation, as the size of the brain is limited, though the change made might be allowed to be very small; we can imagine the whole brain changed in time, when no more fresh changes would be possible. For the sensation expressed by "It is hard," we will say, a part of the brain was changed; for "It is soft," another part, which could be used only for that, and not for "It is hard," was changed; and so on. The whole brain would soon be changed, and so, full. But that it is not we have the best evidence, for there have been men, students of languages, who have learnt a fresh language between seventy and eighty years of age. One, if I remember right, Elihu Burritt, was said to be able to speak

one hundred and fifteen languages; and so far was it from being the case with him that parts of the brain upon which sensations had once been made could not be used again for other sensations, that he averred, what every student of languages knows, that the more languages he learnt, the easier it became. It may be said, however, that because the memory of an old man does not retain recent events as strongly as those of his youth, is an evidence of change in the substance of the brain, resulting from the retention of many sensations. The reply is that in senile decay the whole body begins to fail, internal organs as well as muscles and senses; and that in this decay the brain is included.

Again the analogy of the other parts of the body is against the notion of permanent changes in the substance of the brain by doing its work. Take the hand, for example, one of the most perfect instruments in the world for various uses. We do not find that each different work it does makes any permanent change in the substance of the flesh. That writing makes one change, for example, playing the piano another, painting another, or wood-carving another. We find, rather, that while the flesh remains the same, except the usual hardening from exercise, there is scarcely anything within its range the hand cannot be taught to do. Why, then, should the exercise of the brain permanently change its substance, any more than the exercise of any other organ or muscle? We must, then, it seems, look elsewhere for an explanation of memory. In order, therefore, to find another explanation, it will be necessary to digress for a short time to consider what is called the will.

Every one who has thought of his mind knows that there is in it a power by which he can control certain parts of his body. If he desire to move his arm, this power enables him to order it; the muscles obey, and it is done. If his arm is in motion and he wish to stop it, this controlling power enables him to order it to rest. This power is called the will; its exercise, volition.

Certain muscles of the body are under the control of the will. These are called voluntary, while others called involuntary, work absolutely independently of the will. No one by his will can stop his heart from beating; or after he has eaten, his stomach from digesting, and the other organs concerned from aiding the process. On the other hand, every man in health can control his arms, hands, legs, feet, eyes, tongue, etc. This has been wisely arranged as it is, for our convenience and comfort in life. But the will is not the sovereign upon the throne of the mind, though at first sight it might seem so. It is only an agent, for there is something behind it which causes it to act. This is what is called *desire*, and every child knows that this means what we want. The will moves the arm then, because we want to move it; and stops it when we want it to do so. We walk when we want to, that is *will* in obedience to *desire*, sets the legs in motion; and stops them when we desire to stop. In untrained inferior animals, or in wild animals, desire absolutely controls the will as we shall see when considering desire fully. The creature does only what it wants to do, whether it is motion or rest, etc. There is no reason why it should be otherwise. With rational beings, however, it is different; for here moral laws inter-

pose a power to make the will withstand desire, when it would urge the will to the commission of wrong.

Here, then, we see what the will is, and also what is behind to influence it—desire. We can, then, return to our consideration of the memory.

Since first thinking of the matter, my idea was that brain motion is necessary for both thought and memory; and this has been found to be the case.

Every one who has seen the exposed brain of a living human being, will have noticed that it is in a continuous gentle motion; partly, no doubt, as a result of the circulation of the blood, but more largely as a result of the thoughts going on at the time. Now, when a sensation is produced in the brain, it must cause a slight motion of the filaments of the brain cells affected, when it is transmuted into thought. A repetition of the same sensation will again cause the same motion of the same filaments, resulting in the same thought. When this is done several times, the sensation becomes more familiar to the mind each time, and each time is more quickly produced. Each sensation, then, is recognized as a repetition of the preceding; and the result of this recognition is a memory of the sensation. It is easily recognized to be the same sensation when only a minute intervenes between them, but the result of the repetition makes the sensation so familiar, that it can be recognized a day, or year, or years after. For example, years ago a boy touched marble and found it hard. He touched it several times, handled it and saw what it looked like. Each time the sensation was repeated it became more familiar to the mind, so familiar, that to touch or see marble at any time causes the same sensation now; the

same familiar motion, in the same part of the brain, it is at once recognized, and the cognition, marble is hard, is at once expressed in words.

But how without touching marble, or being near it, can he call back to his mind a clear and distinct cognition of it? It would appear to be in this way. We saw above that the voluntary muscles of the body are under the control of the will. Now this must be so in an eminent degree with the thinking part of the brain, and with the part of it that controls the voluntary muscles of the body. If the former were not the case, we could not direct our attention at will to any object whatever; if the latter were not so, we could not control the voluntary muscles. We find, however, that we can control our thoughts, change their current, or direct our attention to anything we please. Now we are aware that when the will orders a voluntary muscle to move, before it moves a movement takes place in the part of the brain controlling that voluntary muscle. This slight brain movement sends the necessary electric-like message to the voluntary muscles, and its instant movement is the result. From this it is plain that the will can cause a motion in any voluntary part of the brain it pleases. But desire is behind will. A man desires then to recall into consciousness from his memory, we will say, a cognition of marble. The will causes the familiar motion of the brain cell filaments, where the sensation expressed by, this is marble, was first produced by the sense perception of touch; and now, though no marble is touched, by reflex action resulting from the familiar motion of the cell filaments of the brain, the recollection of what marble is, comes into consciousness. Again, a

man desires to recall the name of some one, but cannot. But thinking of the man's appearance, sets the part of the brain in motion that was first moved by the sensation produced in the brain by the sight of the man, and the sound of his name. The familiar motion brings the name into consciousness by reflex action.

Further, it is a known fact, that musical notes, which first passed from the brain to the fingers, to be sounded on a piano; when for a time forgotten by the memory, can be placed back there (if the beginning of the piece is remembered) by commencing to play it, and then allowing the fingers to work automatically, without looking at the keys. The piece having been very frequently played without notes years before, when begun, and the hands find themselves again following the first familiar motions; will be recovered, by the hands falling automatically into the following motions. The old notes by being struck, bring back the tune to the memory through the ears; when it can afterwards be played in the usual way. Just in the same way, if one wishes to think of the French word for turkey, the association of ideas causes the motion of the brain first made by hearing the word *dindon*; and by reflex action, the brain motion brings back the word.

Motion of brain parts to cause recollection would seem then to account for the memory being as dependent as it is upon association of ideas. Every one knows that the easiest way to remember a thing, is to associate it with another thing already familiar. To remember the one then, we first think of the familiar thing. In other words, two brain motions

associated together, gave the associated sensations in the brain, resulting in the associated cognitions. Causing a brain motion by reflex action that calls up the familiar one, starts the other motion, with which it was first associated; and this by reflex action, brings again into consciousness the dormant cognition which is wanted.

This motion of cell filaments of the brain was propounded by Dr. S. Ramon Cajar in 1889. He discovered the filaments to be terminated, not continuous, and that when excited by a sensation, they moved and touched others, thus forming a telephonic connection in all directions in the brain. According to which ones met, was the sensation produced, and the resulting thought. He made this also account for isolation of thought (concentration), by only the filaments desired for the subject being connected.

It is now, however, held by some brain microscopists, that the brain filaments are continuous, and that each sensation makes a slight, temporary, chemical change in the brain substance affected. We would naturally expect this, as waste from use. This is not the place, however, to discuss the physiology of the subject, but all who wish to do so can easily examine the latest works upon the brain.

CHAPTER XIV.

THE MEMORY.

WITH reference to the strength of the brain motions of the memory resulting from sensations, they probably differ in proportion to what the subject is fond of. With me, sensations resulting from sight and sound cause the strongest motion of the memory. I have no difficulty in recalling localities, or tunes; but cannot recall, sitting in my study, the taste or smell of the most common articles of food, most probably because to me eating and drinking are a necessary evil. A sensation resulting from touch, I can recollect only by recalling an image of the object supposed to be touched. Yet my senses of taste and smell are good enough, as I have no difficulty in recognizing by them anything previously known. I have found, however, that some smells pleasant to others, are to me peculiarly unpleasant, as the scent of nearly all yellow flowers. The smell of *syringa* (mock orange) is to me odious.

On the other hand, we can but suppose that a man with no musical ear, could never consciously recollect a tune; for he cannot distinguish one from another. The artist, again, must have a very strong memory for scenes and localities; as in addition to his natural love for these things, his powers of observation have been cultivated by study. Plainly, then what one has a natural aptitude for, and is consequently fond

of, produces the strongest movement of the memory; and makes it most quickly. One more instance, which came under my own observation, may be given. A young man who was fond of ships studied medicine and entered the army. While at Netley, though it never interfered with his work, he was a walking shipping list of the vessels that entered Southampton Water, and is always so for the ships of the Navy, and much of the merchant service. That it could have been comparatively no effort to him is shown by the fact that in his examination for the army he entered and left Netley most creditably.

To affect the memory quickly and strongly, concentrated attention, whether given consciously or unconsciously, is necessary. By this is meant fixing the powers of the mind upon a subject, or confining the thoughts to it, exclusive of everything else. Some emotions cause instant unconscious concentrated attention. If a woman, for example, has been rescued from a sudden shipwreck, though it was one event and over say in ten minutes, she never can forget the appalling sight of the ship sinking, or the awful last, despairing, combined cry of the doomed multitude. It is worse than not forgetting. Her desire for a long time is to get the scene from constant consciousness in her mind, to unconsciousness. What she means by saying with a shudder, "I can never forget it," is that she cannot get rid of the picture, and it may be long before it fades sufficiently by efflux of time, to allow her to enjoy life again, especially if she lost a near relative in it. Here the brain motion of memory caused by the sight must have been very great.

When the attention is consciously concentrated

upon a thing, with frequent repetition, the impression made upon the memory will be lasting. Desire influences the memory also, as it is easier to remember what we want to, than things we are indifferent about.

Some writers like Locke, believe that a thing may so fade away out of the memory, as to be absolutely forgotten; as absolutely as if it had never engaged the attention at all. "*Ideas fade in the memory.*" Concerning the several degrees of lasting wherewith ideas are imprinted on the memory, we may observe, that some of them have been produced in the understanding by an object affecting the senses once only and no more than once; others that have more than once offered themselves to the senses, have yet been taken little notice of: the mind, either heedless, as in children, or otherwise employed, as in men, intent only on one thing, not setting the stamp deep into itself. And in some, where they are set on with care and repeated impressions, either through the temper of the body, or some other fault, the memory is very weak. In all these cases, ideas in the mind quickly fade, and often vanish quite out of the understanding, leaving no more footsteps or remaining characters of themselves than shadows do flying over fields of corn, and the mind is as void of them as if they had never been there." (Human Understanding, Bk. II., Cap. x., 4.)

Others hold the view that what has once caused a sensation in the mind can never be absolutely forgotten; and those who think of the subject carefully will come to the conclusion that these last are right. For they will notice, for example, that in after life it has happened to them to meet again a person they

met early in life. This person's existence they seemed to have absolutely forgotten. But for some reason, the other person had not forgotten them; and when they meet again, suppose after thirty years, and the other tells them who he is, and reminds them when they met, recollection of the circumstance comes back. After the meeting is over, the forgetting one will often say, "I had absolutely forgotten the name and existence of that man, and if we had not met would certainly never have thought of him again during my life." But when he was met again, and recollections of him came back, the man was not as one never known before. The longer the meeting lasted the more of the old circumstances came back from the memory, showing that though his existence had not been called into consciousness for years, when it did so come back it was not as a stranger.

So it is with some book read in early life. The name of the author and title are forgotten, so much so, that late in life the book may be taken up to be read as one never seen before. As it is read, however, it seems to grow familiar, and this notion strengthens with further reading, till the reader says to himself, "Surely I have read something like this before;" and finally, "I am certain I read this book many years ago." Then will come the recollection of where it was read, whose book it was, etc. But the book had so far passed out of consciousness that it would never have been recollected again, not unless met with, but unless actually read again. Now in each of these instances the recollection was brought back by association of ideas.

Oddly enough, persons who do not know the

meaning of these words, or of their value in assisting the memory, often make use of the fact naturally to assist the memory of another. A and B meet after some thirty years separation, B having always remembered A, but A having apparently absolutely forgotten B. B mentions his name, but it conveys nothing, as half-a-dozen others of the same name have been met by A. Then he tries localities with a like result; one or two other persons they both knew, still no result. Then something personal. "Do you remember skating on the Serpentine in the year '68, and falling and spraining your ankle?" That is remembered. "Do you recollect who helped you?" "I remember being assisted by a young fellow who called a cab." B: "That was I;" and now when the conversation goes on as to getting home, etc., other circumstances are recalled, till A has a fairly good recollection of B. Even his features may now begin to be recognized through the mask of the changes made by time.

Instances, however, need not be multiplied to show that there is no event, no matter how apparently absolutely forgotten, which cannot be recalled if once a familiar associated clue can be got. If the incident cannot be recalled when first presented, it will often be recollected afterwards, when thinking over the conversation.

That the memory may be permanently, or temporarily, partially, or wholly lost by a sudden shock, or by disease, may be accounted for more easily by the brain motion theory of memory, than by that of permanent change in the substance of the brain. If a brain specialist were asked what caused loss of memory his reply would probably be, something like

the following:—Paralysis of part of the brain, from disease or injury to the cells in the base of the brain controlling that part. Now, paralysis means the substance of the affected part remaining the same, but the power of *motion* destroyed by loss of nervous energy.

Observation means the power of noticing with concentrated attention; and rapid observation, the power of noticing many things in this way, in a very short time. If an enumeration of the things noticed or observed be given, the memory is consciously called into action, and very vigorously. Called into action in this way, it responds at once, and so ably, as apparently to be equal to any demands that may be made upon it. Instances, perfectly authentic, are on record of men, who as a result of training, were able to repeat at once thousands of mixed words of several languages, of the most diverse meaning in their own, after hearing them only once one after another. Further, they could do it in any order, beginning from any given word. This for the sense of hearing. It is, however, exactly the same with the sense of sight. Those who have read the confessions of so-called clairvoyants, will remember that their success depended largely upon most rapid observation with their eyes, backed by a highly-cultivated memory. In one case, when the father brought his son to a nobleman's country seat to exhibit his powers, he arranged, unknown to his host, that as the party slowly passed through the library, his son should observe the titles and situations of a given area of books. When the lad was blindfolded in the next room, as he had never been in the house before, the father suggested as a difficult matter to try him on the

books of the library, suggesting also the pre-arranged area the boy had seen, be it remembered only once, for about two minutes. He easily gave the names of whole shelves of books, and told their positions, firmly convincing the company of his supernatural powers, as indeed, by their high cultivation, they were.

Most great men, in every position, have had wonderful memories for some special thing. Lists of their names and specialties are easily accessible. These, with the instances that have occurred of wonderful cultivation of the memory, make one agree with what was said above, that like our powers for the acquisition of knowledge, the memory is limited only by the term of our life; and that if men could live one thousand years, instead of seventy or one hundred, the memory would be equal to the work required of it. If any reader, with a fairly good memory, wishes to prove its power, he has only for some days, to take the trouble of committing to memory a small part of, for example, Scott's *Lady of the Lake*. He will be surprised to find how soon he will be able to repeat the whole of it. Then, by analysis of it, he can easily repeat to the end, beginning from any required line.

CHAPTER XV.

LANGUAGE.

WE have now arrived at the point where we may be said to understand how knowledge is acquired by human beings and animals. A rough outline of the successive steps has been given, crudely, it is true; yet, I hope, sufficiently plainly and accurately to enable those who have not considered the subject before to understand how they know. The more subtle questions in connection with mind and matter, as, for example, how much of the real properties of matter we can know, etc., familiar enough to men who have thought of this subject for years, have been purposely not touched upon, as only likely to confuse, and give a distaste for the whole subject to the general reader, who has not yet considered how little of absolute truth we can arrive at; but who, as he knows that some things are certainties, does not see any reason why it should not be so stated. The process in the acquisition of knowledge is very short, and though apparently so simple, that many millions of people have acted upon it all their lives without thinking of it, while inferior animals never think of it at all, is really one of the most wonderful and complex of all the works of the beneficent Author of everything. Given matter and mind, we have senses, consciousness, perceptions, sensations (giving thought), and memory; and the short

chain is complete by which we can understand how we know. Before passing on, however, to deal further with the mind, it will be well at this stage to consider that most necessary adjunct to thinking, to precise thought, and to advanced thought—language.

The most ancient known record extant of the origin of the human race, the Holy Bible, teaches us that language was in use among immortal beings and was by the Deity communicated to the perfect man and woman, who were the first of humanity. In treating of language, however, that the subject may be fully understood, I wish to deal with it as it would naturally grow, had primeval man had no instructor.

“The problem of the common origin of language, has no necessary connection with the problem of the common origin of mankind. If it could be proved that languages had had different beginnings, this would in no wise necessitate the admission of different beginnings of the human race. For if we look upon language as natural to man, it might have broken out at different times, and in different countries, among the scattered descendants of one original pair; if, on the contrary, language is to be treated as an artificial invention, there is still less reason why each succeeding generation should not have invented its own idiom.”

“Secondly, the problem of the common origin of languages has no connection with the statements contained in the Old Testament regarding the creation of man, and the genealogies of the patriarchs. If our researches lead us to the admission of different beginnings for the languages of mankind, there is

nothing in the Old Testament opposed to this view. For although the Jews believed that for a time the earth was of one language and of one speech, it has long been pointed out by eminent divines, with particular reference to the dialects of America, that new languages might have arisen at later times." (Lectures on the Science of Language, page 315 Max Müller.)

Most creatures have a sense of hearing, and consequently a power to utter sounds. Even the expression, "Mute as a fish," is not correct; as every fisherman has heard a fish squeak its weak protest to its captor, who, to its staring eyes in the rarer medium, must be magnified into a giant. This power to utter sounds is very limited among inferior animals, but still extended enough to answer all the purposes of their ordinary life. Take the common barn door fowl. In the crowing of the cock, and the cawing of the hen, we have the call to find each other when separated by long grass or undergrowth. In the prolonged caw of cock or hen, we have the note of alarm when the hen harrier appears; a cry plainly meaning, "Run and hide," which all proceed to do. In the "Tip, tip, tip," of the cock, when he has found food, we have a call as plainly understood by the hens and young as the bugle call of "Come to the cook-house door boys," is understood by the soldier. The cluck of the hen to her chicks means, "Come," as plainly as the "Hà! Hà! Hà!" of the Maltese goat-herd, whose animals follow him. and so on.

In inferior animals we have sounds to indicate desire (for company or food), fear, anger, affection, pain, satisfaction, etc.; in short, the sounds to ex-



press their bodily needs; and what their limited powers fail to express in sounds, is supplemented by gesture, as a young cock in play placing himself in a fighting attitude before another; or in a brood hen sitting down, and clucking to her chicks, who at once understand she thinks it is time for them to rest. Beyond the sounds and gestures or signs as given, few, if any, animals go, even monkeys; as they all live only a simple natural life. That they can have ideas beyond their speech and gestures every lover of animals knows. An intelligent dog, for example, is very susceptible to ridicule, especially the bright fox terrier. I cured mine, to give an instance, of yawning aloud in the drawing-room, by imitating him and laughing at him. After doing it to him twice, he never yawned aloud again. But though monkeys, dogs, etc., can be taught many kinds of tricks, they cannot advance far in thought, from the lack of the human power of speech. This they cannot get, because the physical power is wanting.

Now, primeval man would begin with the sounds signifying the same things as inferior animals, but would very soon advance beyond them by means of his greater intelligence, and his organs of speech. Necessity would lead to invention of shelter, of instruments of offence and defence, etc.; and his organ of voice would naturally lead him to give a distinguishing sound or name to each. Though savage nations, far removed in distance and relationship, in the progress of the growth of their language might occasionally hit upon the same sound, it would not often be for the same idea, unless in the case of onomatopœia, like hiss, or whizz, for example. As

however, take what we will for the origin of man, all languages must at least partially have sprung from one primary source; it is easy to see how rapidly they change, by comparing our present English with that of Chaucer; or, for other countries, by comparing the English of England with that of the United States of America. In each country, with many common things, a different meaning is given to the same word, for example, *lumber*, which means in America, *timber*; or a different word is used to express the same thing, for example, engine, luggage, funnel, and carriage, called locomotive, baggage, smokestack and car.

All words are names simply (*nomina*). Now the object of a name is to express in one word what would otherwise take many words. This will be seen immediately if one in conversation with another happens to use a word unfamiliar to the other, say, for example, gargoyle. The word has no meaning to the other, and he asks, "What is that?" You have then to give him a definition of the word, and in doing this you may use ten words, or for a full definition, perhaps twenty. Now this takes time, and if it had to be done often, would make conversation well nigh impossible. This, however, is a technical word; but it is exactly the same if you use ordinary words to one who has not learnt their meaning. A missionary, trying to teach an Australian savage, says, for example, "Cultivate gratitude in your heart." "What," asks the pupil, "is gratitude?" A long definition or explanation must follow. Imagine him saying: "Cultivate gratitude, meekness, gentleness, and charity," not one of which was previously known; and he has a text which, with

illustrations, would occupy him an hour. This is, however, a sentence that might occur in an address to elder pupils in a Sunday school at home, and every one would understand it; although here we have, in all conscience, enough half-educated, or again ill-advised speakers, who are fond of long words, like one I heard once say to an infant class, the eldest not over nine, "Now children always speak the truth and avoid prevarication." One of the children, asked privately afterwards what "prevarication" was, replied, "Please, sir, a long name for the devil."

Every student of modern languages knows that it is just the same, if, in speaking a foreign language, one forgets for a moment some familiar common word. Once a half-wrecked ship of the French Merchant Service took refuge in a small English port, where no French was spoken. The captain, who spoke no English, wished his ship temporarily repaired, and the curate of the parish, who spoke French, kindly consented to interpret. "Tell him," said the foreman of works to the curate, "to rig up a derrick." This was much easier said than done, as the interpreter did not know the French for "derrick," and knew little of the word in English. He succeeded, however, in conveying the meaning to the captain, by a long explanation occupying some three minutes. In Cyprus I realised this difficulty more than twenty years ago, upon telling my Syrian servant (I then spoke no Arabic), who spoke dragoman French, to go to the market for half-a-dozen eggs. He understood everything but the word egg, or eggs. For a quarter of an hour every circumlocution for eggs, which it was thought possible he would under-

stand, was tried, even to a drawing on paper. At last his face beamed; he understood; he flew, and returned, perspiring from every pore, with six Turkish coffee cups.

This knowing the meaning of words, therefore, which express particulars, or generals, simple or complex ideas, enables one to put in a short discourse a great deal of thought, and, consequently, makes conversation pleasant, as well as useful, while the orator or writer, if clever, whose style is simple and fluent—and the most clever generally are so—will be the most easily understood, and consequently the most pleasing. From this it will be manifest that the more concise a writer or speaker is, the higher must be the intelligence of his audience; and of these, auditors than readers, because auditors cannot stop listening to think. Bacon's Essays, among the most polished examples of conciseness, would not convey much to the majority if read alone at an ordinary political meeting; while most philosophers could be read aloud only to those familiar with the subject.

CHAPTER XVI.

LANGUAGE.

THE whole of our education depends upon knowing the meaning of words or names. Almost contemporaneously, then, with the beginning of education in the mind of the infant, comes the part of education acquired by hearing. Shortly after the infant notices by his eyes, his ears begin to claim attention, an attention which becomes most marked when both eyes and ears are engaged at once. The mother utters sounds to the child, which, when she wants them imitated by it, her own sense tells her to make monosyllabic. The child unconsciously catches the sound and utters it, and soon, when the parent says it to the child, the latter will say it in return. Here, then, is the beginning, and after that the sounds heard are learnt rapidly. To the child, it is all the same, whether the sounds which we call words are English, French, German, or Arabic sounds. There may be a hereditary tendency in the national formation of the tongue, throat, or mouth, for a language, and there may be a national hereditary tendency in the mind. If so it must be very slight, as anyone who has lived in a polyglot town knows. In Cairo, I have seen young children of three or four, to six or seven years of age, French, Italian, Egyptian, and Greek, playing together in the street. Their talk is a mixture of all four languages. When they continue associating, they grow up each one speaking

all, and all are remembered for life, and were acquired without trouble. We had a female cook for a time, who could not read or write a word in any language. She was a Greek by nationality, but spoke also fluently, French, Italian, Arabic and English.

These sounds the child soon learns, designate persons and things, etc. It learns, then, the names of the common household things of its family, of common every-day things in nature, and remembering the name indicating each, by frequent repetition, the name of the thing calls up from memory a cognition of it in the mind. This knowledge, then, is the foundation, and though persons or things may be very partially known, it is increased every day by the addition of new words, each one bringing a new definite fact or facts in knowledge. Each word defining and distinguishing what it represents, is stored away in the memory for future use; while the child advances by education to fresh ones, to be also stored away. Thus a gradual growth in education is possible, for each subject taken up has its own technical words, which must be learnt before the process of putting them together for complex ideas is possible. When the advance is sufficient for the education of the reasoning powers to begin, it is the same. Euclid, like logic, has its technical definitions, that is, meaning of words or signs to represent them, which must be mastered before one can understand the first proposition of the first book in the former; or the

“ Asserit A, negat E,
Universaliter ambæ.”

of Aldrich in the latter.

Although great diversity of opinion has appeared among different writers upon the question, most of us will agree, that in language, as in thought, we begin with synthesis, and rise by education to analysis. The child learns first the names of particulars, for example, a chair. But soon finding that a chair may be any chair, where shaped alike, and that there are many in his home; and hearing the word chairs used, and told that it means any number of the same thing, he sums up his particulars in his mind, and begins to use the general word. This he will do with everything, until without knowing it he makes use of words indicating individual, family, species, or genus, as required.

When he has attained to man's estate, his language, like his thoughts, will be more in generals than in particulars; and more in generals, the more widely his education has been extended. Generals must be more used than particulars, because it is not possible for one person to know and carry in his mind all the names that have been given to particular things, for example, the stars. Who, again, could name every insect, fish, bird, or beast? Of each of these, then, every one knows the names of a few, which are most commonly known. For the rest he must let the general term suffice, as it would be impossible for all the individuals to be known to any other than a specialist in each. So with things which must be dealt with in bulk, as sugar, wheat, salt, shingle, etc. Different kinds in bulk are named, but particular grains it would be not only impossible, but unnecessary, and useless to name.

It was said above that knowing the meaning of

words makes conversation possible. Let us now see how this is.

Everything that needs it has a name or word to express it, and this applies to the three great kingdoms of the world, mineral, vegetable, and animal. Further still, everything that can concern us in any way is named. We have names, then, not only for every part of our bodies, but for all the thoughts, powers, feelings, emotions and passions of the mind. Now, as we have seen, education advances by our giving everything its name, and knowing the meaning of the name. Consequently when a word is used, a cognition of the thing is at once called forth from memory. If one says a chair, a table, we know what is meant, though neither chair nor table may be present. If he say fear, anger, violence, we again know what is meant, as well as when he says goodness or wickedness. From this we can see that the whole object of our learning language, and all that is involved in that learning, is to enable us to speak of anything whatever, material or immaterial, whether it is present or absent. It is just as necessary in the one case as in the other, but the latter power—speaking of things in their absence—is by far the most important. For we must want to speak of things actually existing, and which cannot be produced, as for example, China or Australia; or persons far removed in distance from ourselves; or again of objects of barter or exchange. In fact, the greater part of conversation is carried on about things not actually present. The whole of our knowledge of history, of the world, its changes and inhabitants, and past events, depends upon this; for naturally none of them could be produced. By

means of language, however, all this becomes possible; so that there is no subject upon which the thoughts of our mind cannot be transferred to the minds of others.

Language, then, whether oral or written, is not only the great agent of education, but is that from which we derive an enormous amount of the pleasure of life. That nothing can equal it, in spite of what some so-called professors of signs say, must be evident to all who have observed two highly educated deaf mutes conversing with one another. Although it is marvellous what difficulties have been surmounted in this field, yet the imparting of ideas can never be as perfect without language as with it. Hence, if thought rules the world as king, language as the expression of thought rules it as queen.

That language is the best, then, which has a distinctive word for everything that exists, or that can be conceived in the mind; in short, that language is the best which is the fullest. By *best* is meant here, for the expression of our thoughts. It may not be the best, however, in other ways. For we want, not only to have a word to express every cognition, but for the purposes of rapidity we want that word to be as short and simple as possible. Take an instance. There can be no question that the English word, *boat*, is a better one to express the concept than the Maltese word, *dghaisa*—pronounced *disa*. We want in a language, then, fulness, and convenient words, and conciseness of expression; and after an experience of several, my impression is our own supplies these requisites as well as any. It has only one great difficulty, its pronunciation; but its lack of rules in this is to my thinking, more than balanced

by conciseness in spelling and expression, and the easiness of its rules of gender, the great stumbling block in other modern and ancient languages.

Before leaving this part of the subject, it may be well to touch upon the question often discussed, whether language is necessary to thought. There have been writers who have actually maintained, that in thinking we think in each instance the word necessary to express the thought or cognition. This means that we cannot think without using—mentally—words; just as some semi-literate persons in reading to themselves, instead of saying nothing, pronounce in a whisper to themselves every word they read. This may be seen by observing their lips moving as they read.

Now, it is very probable that those who contend we all think in words, have accustomed themselves to think in this way, and then, finding that their own experience, have come to the conclusion that all must think in this way. If this were the case, however, what could be said of the thoughts of inferior animals? They all think, though some domestic ones may know the meanings of but three or four words. Every one has observed the intelligent actions of dogs, which plainly indicate reasoning thought, though in a less degree to our own. Driving once with a half-bred pointer following the carriage, I stopped beside a mill-pond to speak to a friend. Just then the dog picked up a mutton-bone covered with dust, thrown from some hamper. He carried it to the pond, waded in to his shoulders, dropped the bone in the water, turned it over two or three times with his paw till it was washed; then seized it, carried it to the grassy bank and proceeded

to eat it. Here was a rational action with no words possible.

Again every owner of a dog has seen him lying asleep dreaming before the fire. His imagination is plainly very busy. He whines, tries to bark, his paws are twitching with attempts to run. All this is unconscious thought without words; just as the same dog lying awake at your feet by day is thinking without words. So the infant thinks without words before it can talk. The deaf mute, uninstructed till grown up, has thought all his life without words. So most persons, especially thinkers, think without words. To think with words would take up infinitely too much time. If some three thousands words, spoken rapidly, occupy from twenty to twenty-five minutes in delivery, it is easy to imagine a man thinking for that time, have thoughts pass through his mind that would take many thousands of words to express. Every one knows, too, that an apparently long thrilling dream occupies in reality but a few seconds. For ordinary every-day thinking, then, words are not required, or generally used, and will usually not come up into consciousness at all, unless for an instant we direct our attention to them.

There are circumstances, however, when it is better to take the time to think in words. If one is a public speaker, and has jotted down upon paper the line of thought he intends to follow, with its divisions and sub-divisions, intending to remember these, follow them in their natural order, and trust to the occasion for the words, he will find his study of the subject much simplified if he thinks it out in words, without, of course, attempting to speak them.

This latter will do rather more harm than good, for no empty room can give the divine afflatus that comes from "the contagion of a multitude," as Alison calls it, in his *History of Europe*. The excitement, not too much or too little, that comes from having a message to deliver to an expectant audience—or country through the newspapers—will, if a man is full of his subject, cause him to overflow with words, and rouse him to his best efforts.

Further, to think the subject over in unspoken words, requires an amount of concentrated energy of mind that makes the order and sequence of thought come up into consciousness, very easily and quickly, when the time for giving it expression has arrived. The value of actually putting precise thoughts upon paper if one wants to keep them, needs not be mentioned; as it will be evident to the most casual observer. We may fitly conclude with the opinion of Sir W. Hamilton in his *Logic* (p. 98) upon language and thought.

"For perception, indeed, for the mere consciousness of the similarities and dissimilarities in the objects perceived, for the apprehension of the casual connection of certain things, and for the application of this knowledge to the attainment of certain ends, no language is necessary; and it is only the exaggeration of a truth into an error, when philosophers maintain that language is the indispensable condition of even the simpler energies of knowledge. Language is the attribution of signs to our cognitions of things. But as a cognition must have been already there before it could receive a sign; consequently that knowledge, which is denoted by the formation and application of a word, must have pre-

ceded the symbol which denotes it. Speech is thus not the mother, but the godmother of knowledge. But though in general we hold that language as the product and correlative of thought, must be viewed as posterior to the act of thinking itself; on the other hand it must be admitted, that we could never have risen above the very lowest degrees in the scale of thought, without the aid of signs. A sign is necessary to give stability to our intellectual progress—to establish each step in our advance as a new starting-point for our advance to another beyond."

CHAPTER XVII.

QUALITIES OF MATTER.

WE have seen that all thought in the mind takes its rise from the existence of matter. This being so, certain qualities of matter, which are called *primary*, naturally produce cognitions or thoughts in our minds, which have been named "simple." This is, perhaps, the best word that can be used, because it is so general. Primary would answer, only that it involves the idea of earliness in point of time, which may not be true of many simple cognitions.

"The distinction between primary and secondary qualities hath had many revolutions. Democritus and Epicurus and their followers maintained it; Aristotle and the Peripatetics abolished it. Des Cartes, Malbranche, and Locke revived it, and were thought to have put it in a very clear light. But Bishop Berkeley again discarded this distinction by such proofs as must be convincing to those that hold the received doctrine of ideas. Yet after all there appears to be a real foundation for it in the principles of our nature." (Inquiry into the Human Mind, Section iv., Reid).

The mind of the child becomes aware of these primary qualities in matter long before he has learned to give them their every-day names. They are substance—embracing the idea of composition,

form, extension, solidity, weight. For convenience, to these we may add colour, for nearly all matter, except, for example, air, confined steam, gases, glass, etc., have colour, though it is, of course, not a primary quality. We may note in passing that Locke's list is "solidity, extension, figure, mobility and number."

Substance. Every one I presume has amused himself watching an infant attempting to grasp a reflection. He has done it by throwing a reflection of the sun or a lamp on the floor. When the reflection is thrown upon the floor in front of the child, he will attempt to seize it with his hand. But it is moved slowly away in front of him, he creeps after it, and tries again to seize it. Now, while it remains at rest, he repeatedly tries to grasp it but cannot, just as puppies or kittens have chased it and tried to stop it. The child learns, then, that it is something different to ordinary matter he is becoming used to, for this is *something*. He has seen and touched himself and other things so often, that he has the idea of substance in his mind, and as yet can think of nothing that is not substance. He naturally, then, takes a reflection of light, or a shadow for substance, as a shying horse often does. He has learnt substance, then, and may or may not have advanced to the idea of composition, that is, that different substances are made up of different things. If old enough to eat, he has learnt that sugar and pap are different things, and that neither is milk, showing that his knowledge has advanced to some fluids. That air is substance, he, of course, will not realise till old enough; as although familiar with the wind and its effects in childhood, that it is matter pos-

sessing impenetrability he must be taught. Plainly, then, substance will be one of the foundations for the simple cognition of it.

Form or shape. The child must notice in the second place that substance has form, or in everyday language, that things have shape. He knows his mother, his nurse, toys and cradle, and early distinguishes them. This he learns to do with his eyes, afterwards unconsciously corroborating sight with touch. There can be no question of the definiteness of this infant knowledge, as anyone may speedily find by taking from him some thing he wants, and endeavouring to give him something he does not want. To the child's shrieks will be added the mother's or nurse's angry expostulation. The child, then, has a cognition of form or shape in his mind.

Extension. So he has of extension, commonly called size. He sees and understands that things are different in size, learning it very early in experience. He finds he is carried about, and likes it; but while he will cry to be carried, he will also cry to get his kitten, or ball, or doll to carry. In a company of people in a room, very young children will go to each other for acquaintance, rather than to older—taller—people. So unconsciously to himself begins his education in extension, or dimensions, which may be seen in after life by his ability to judge the size of a room, the height of a house, or tree, or length of a bridge.

Solidity. Very early he must get a notion of this, though it may not be so apparent as extension, for example, as seen between the size of two pieces of cake. He learns the security of his mother's arms, the floor to creep upon, or the ground to play upon.

he learns it in what he plays with, and uses, and sees; so that put out of sight deep down apparently in unconsciousness there is scarcely anything that awakens more dread than a doubt of the solidity of things upon which we stand. Only our superior knowledge prevents our often acting as the elephant does, which, conscious of its own weight, is called upon to cross a wooden bridge in a country place.

Weight. This, again, is a simple cognition derived from early experience. As the child furnished with materials for amusement learns extension, or form, by means of them; so he gets the notion of weight. One thing is heavy in his hands, another is light. He consequently comes to learn which of his every-day surroundings he can carry, and which not. He does not hesitate, then, to ask for help for the removal of what is beyond him.

Cognitions of all these primary qualities in matter being necessary for our existence, we find them also in most inferior animals, whose minds appear to be constituted almost exactly like our own, but in a less degree of power. The dog, for example, knows substance. He snapped at shadows when young, but declines to notice any but a fresh one to him in the wisdom of his maturer years. He knows his kind by their shape of form, rather than by their colour; for in the dog's world, let one be following his master in crowded Cheapside, or in Market Street in Manchester, all the human beings except his master, are only beings to be avoided. But if he see another dog, no matter what its colour, it is a dog, and must be treated with the usual amenities of his nature, in accordance with what the requirements of his master permits. So they distinguish

in extension the size of their kind, though they may, if thorough-bred, be indifferent to it, as the fox or bull terrier, which will attack a wolf-hound if he thinks his master wants it done.

With reference to colour it may be treated as a primary quality of most kinds of matter, for we know it as a result of the kind of light we have in the world, just as we know weight in the world. It may be an interesting fact to know that as weight depends upon the strength of gravitation, or the size of a planet; a pound on the surface of the earth would weigh less on the surface of the Moon. This knowledge, however, does not prevent our dealing with weight as if it were absolute, rather than relative. So, though colour is not an inherent property of matter, as the same substances under the same conditions always absorb and reflect the same rays of light, it comes to much the same thing. So we have simple cognitions of colour, and they are, perhaps, harder to define, than other simple cognitions. They require a comparison like, for example, black is the colour of the absolute dark; blue is the colour of the clear sky.

Everyone knows that bright colours attract strongly very early in life. The cognition of colour, then, must rank among the very first of our simple notions, and may come after that of light. The probability is that it does, and all through life, in its various multitudinous combinations, it affords some of the highest gratifications we enjoy. The uneducated mind apparently always prefers bright, garish colours, and brilliant contrasts, to the more subdued ones. The child prefers the most gaudy toy, the black savage, scarlet or yellow; and the

peasantry of most countries, especially Eastern or Mediterranean, brilliant colours also. That these may be artistically arranged, is, perhaps, not so much due to natural taste, as to the cleverness of Manchester. Enough has, however, been said of these simple cognitions to enable us to understand them.

That we become aware of these primary qualities, each one by means of the sense fitted to perceive it, and some by means of two senses, will be at once evident. Substance we learn by sight and touch, form in the same way, etc.

Besides the five primary qualities enumerated above, which are common to all matter, there are the four other well-known ones of divisibility, indestructibility, inertia and attraction. These, however, have been passed over, as they could not become known to a child from his own experience; but would have to be taught to him as a part of his advanced education. Inertia he would necessarily learn something of without fully realizing it, as his experience would soon teach him to expect to find articles where he left them, unless they had been moved; but divisibility, indestructibility, and attraction have been learned only by advanced thought. Simple notions or cognitions of the first five in all forms of matter, do not and cannot occur early in life. They must be taught in after years, and if not so taught, many may go through life absolutely ignorant of some of these qualities in certain things. Weight of the air, for example, is a most striking new cognition in chemical physics for the lad who places his hand for the first time over the mouth of a tumbler, from which the air is afterwards exhausted.

Besides these primary qualities, are others called secondary or accidental; different in different kinds of matter, but not common to all, as, for example, hardness in iron, softness in lead, ductility in iron, its absence in lead; easy fusibility of the latter, more difficult fusibility of the former, and still more so of platinum. From these secondary qualities we get simple cognitions, as from the primary, and in the same way; either by perceiving them for ourselves, or by being taught them by others. In most cases our learning them is according to the general rule of education, a combination of the two.

But besides simple cognitions we have complex ones. These are compounded of simple ones, derived from the primary and secondary qualities of matter. It may here be observed, but will be referred to at much greater length later on, that as all thought has its origin in matter, whether so-called material or immaterial; so nothing is possible in thought, that is not possible in experience. No one, for example, can add two to two and get five. It is consequently not possible to think that 2 plus 2 equals 5. We get, then, in matter, things of apparently one substance, but which may by analysis be found to be compounded of many. Just so is it in thought. Take the concept man, and imagine some well-known one. When we think of him, we see him in our mind's eye of memory as one concept, yet if called upon to describe him, we would see at once what a large number of simple cognitions, derived from his primary and secondary qualities, are united in our minds to make up the concept of that particular individual.

As in matter all of the primary qualities are to

be found, it follows that every cognition of any part of it, or of any one thing, must be complex. If one thinks of a book, for example, it must first of all have all the primary qualities. Then there is the colour of its binding, the materials used for it, the pattern of it, the letters printed on it, whether in gold or plain; the kind of paper it is printed on, the size of the print, etc. And because the book is complete, each of its parts has its primary and secondary qualities. Yet when a new book is put into the hand, in an incredibly short time the mind synthesises all these particulars into the one book. As this process has been going on from infancy, we can thus see that it is just as easy for the mind to deal with complex, as with simple notions. Indeed, from the outset the child had to have cognizance of them, and has become so accustomed to deal with them, that when asked to define a simple cognition, like blue, for example, he is surprised to find himself absolutely at a loss for words that would come so readily if asked to describe a horse. Asked what blue is like he will reply, "Blue is blue, the colour. You know what it is like."

Take reflection, first as what we call thinking. A business man hears privately from a friend that a piece of waste land he knows thoroughly will soon be required by a railway company to build a station thereon, as the terminus of a projected branch line. He knows the land has been in the market for some time. He instantly sees an opportunity for making money, and rushing off to the agents, who have the sale of the land, he leads the conversation to it, and finds from their asking the same price for it as formerly, it is as he suspected, that they are in ignor-

ance of what he knows. He tells them he has been thinking of buying the land, offers less than they ask, gets it for a little more than his offer, and closes the bargain. Shortly after, when the railway people, who must buy it, come to him, he gets his own price, which may be much more than he gave.

Now, this is a case where the thought that led to the transaction was made up of complex cognitions, and occupied scarcely a moment of time before the resolution was taken to act at once. The trained mind of the man of business, the moment he heard the private information, saw a prospect of making a large amount of money. He decides instantly, and is successful; but what led to the rapidity of his decision was the certainty that the transaction must be profitable, if he was before the original owners as to his information.

When doubt enters, as to whether a transaction will be profitable or not; much more time is spent in thought, and in the collection of all the data, for and against, that is accessible, so that no mistake may be made. But all this is only what every one does each day of their lives, in greater or less transactions, though there are tens of thousands, yes, millions of people in the world, who have not only never thought of analysing their thoughts, but are scarcely conscious that they think at all.

So reflection proper can help us to form conclusions upon the working of our own minds. A man in the quiet of his study directs his thoughts upon the memory. He finds that by it he can analyse his life, where he was in such a year, doing what; where five, or ten years later. He can recall the localities of these periods, and the friends and acquaintances

formed in each locality, etc. He can recall his school, or university days; what he studied, his amusements, etc.; and by observing all this, and reading what others have written upon the subject, he can sum up the result of his thoughts in a thesis upon the memory for the information of others.

CHAPTER XVIII.

JUDGMENT.

A JUDGMENT is the affirmation or denial of a fact. The word judgment, as applied to the mind, is that power which enables us to affirm or deny a fact or conclusion. If, for example, I look at the Mediterranean out of my window, my eyes perceive a body of water. When the sensation is made upon the mind, the judgment instantly determines it to be the sea; and if I think of its colour, my judgment at once determines it to be blue. Stated in words the judgment is, The sea is blue, and this is a correct or true judgment. But none the less would it be a judgment if the statement made were false. A colour-blind man, looking at this sea on a fine day, might say, "The sea is red." It would not be true, but none the less it would be a judgment or statement of a fact.

Judgments in the mind, then, may be true or false. The mind having certain data to go upon, which are incomplete, may form a judgment which may be wrong, because everything is not known; or it may form a wrong judgment from a too hasty or cursory examination of the data. Again, false data may be given to cause the mind to form an incorrect judgment. To judge rightly, then, the mind must be capable; the data must be true and com-

plete; and sufficient time must be taken to master them fully.

The judgment is also exercised in determining the congruence or the difference between two or more things, etc. When employed in this way, the operation is spoken of as a comparison, and the result is given as a judgment. "She is more clever than he," is the judgment given as a result of the comparison of the abilities of the two individuals. Truth is stranger than fiction is another judgment which the experience of man has crystallised into a proverb. Indeed, all proverbs are judgments founded upon experience, compounded as has been cleverly observed, of the wisdom of many and the wit of one.

Judgment is one of the powers of the mind first called into exercise. Its position may be illustrated by the animals passing in review before Adam to be named. In the first dawn of conscious thought in the infant mind, the judgment determines upon the messages received from the senses long before they are named. The speechless infant, which has had castor oil poured down its throat but once, will fight like a Turk when a second attempt is made; though it cannot know it is an oil, or its name. When it got the first dose, the judgment decided it to be nasty, and the smell and taste recall the former judgment. Afterwards, when speech has come, every sensation determined by the judgment is labelled with its own name for future use.

By experience, then, we learn all the degrees that exist in the primary and secondary qualities, between sweet and bitter, rough and smooth, large and small, etc.

Above when considering the possibility of the

senses deceiving their possessor, it was pointed out that where an apparent sense deception takes place, it is in reality a wrong judgment. Often the mind of a man is not sufficiently trained, or the substances presented to the sense, for example, cannot be distinguished by the sense. If a cleverly made article in brass is handed to a man to tell whether it is gold or brass, nine out of ten could not tell. Even if taken to a goldsmith, he would probably try it with nitric acid before giving his judgment. So it would be if one were asked if a silver article were up to the standard silver value, or below it. Nine persons out of ten would not know, and the silversmith would probably test before pronouncing. Here, then, are cases where the judgment is at fault, because there has not been special education in these particulars.

The whole object of judging is to arrive at the truth. This is the object of all judgments upon sense perceptions; for each separate judgment recorded in the memory, is another fact in knowledge towards the building up of an education. If a wrong judgment is given upon a sense perception, it may lead to serious consequences. The colour-blind man, by making a false judgment, may sink his ship or wreck his train, and cause the loss of many lives.

Here then, we can see what truth and error are. Truth is the agreement of the judgment formed in the mind with the reality as it exists in experience.* If we say, "All men are mortal," we know the judgment agrees with the reality. Or, again, if we say, the leaves of some trees, called deciduous, fall in the autumn; again we know it is true, for the judgment agrees with the reality.

* For the definition of Experience see p. 192.

Now the mind rests in truth. There is a peculiar gratification in pronouncing a true judgment, and a strong sense of pleasure when others recognize that all the judgments we pronounce are true. Men value our opinion, and give us credit for wisdom, and are glad to have our advice. If, as in the case of Solomon and the doubtful child, a clever appeal to human nature, or some desire, bring the truth to the surface, so that a right judgment may be given, the impression of wisdom, or great abilities, made upon the observers is very strong. In corroboration of how true judgments heighten the public opinion of a man, we have only to think of the one in the village whose advice is always the best.

It is the same principle that makes the great statesman, that is the man who is uniformly right in what he does; not only in bringing forward the best measures for the public good, but at the right time. So it is with the great general. He is great because by means of his judgments in all respects being right, he gains the most glorious victories, with the least loss of life. So is it with great writers. The mind loves to rest in truth, consequently, if one write politics, sociology, religion, psychology, or what you please; it is the writer who tells us what is true that we consider great. So it is even in fiction. The tale that is most true to life is the one *ceteris paribus* that pleases most.

On the other hand, error is the opposite of this, that is, it is where the judgment of the mind differs from the reality. Error, consequently, when it is known, produces a peculiar feeling of disquietude, the very antithesis of the repose consequent upon truth. It is this disquietude that leads to argument,

for whoever heard an argument about a universally acknowledged truth, as, for example, that respiration is necessary to life in man? But an argument arises when one person expresses a judgment as true, which another believes to be an error. He may at first try to conquer his disquietude, but in most instances it is so strong that if there is no objection from surrounding circumstances, he will dispute the opinion. Few persons, however, know how to argue, that is, know that the object of an argument is to arrive at the truth, no matter by whom propounded. Most people naturally believing their own side, argue for victory; and usually the more illiterate the combatants are, the more personal each becomes. Personalities soon degenerate into abuse, abuse irritates, and the result often, of the public house argument, is a fight. This shows both men to be fools, since it by no means follows that the man who can beat his neighbour holds the right view of the matter in dispute.

But let us notice the feeling of disquietude produced by error. A man says, "All men are not mortal," and at once you say, "When did you find that out?" "What makes you say that?" etc. You demand an instance of a man that is not mortal: "Who is he? Where is he? When did he live?" Driven into a corner, your friend takes refuge in Elijah, when you are satisfied. Why? Simply because after all he agrees with the universal belief expressed in the formula, All men are mortal; and your mind sinks into the calm repose of truth, from the disquietude of error.

Again, a man foolishly says, that there is little he does not know. The statement begets in the

hearer not only a feeling of disquietude at the error, but of annoyance at the man's conceit. Though one may not say a word to the author of such a silly judgment to contradict it, the probability is that one will never forget it, and persistently avoid him in the future, as a man not worth knowing. The disgust caused by such a statement is so great, that a repetition of it would be avoided as one would shun pain.

The disquietude caused by error, influences many of our actions more than we think. We have all heard the story of the actor who, at an inn dining at the same table with a stranger who took no mustard with his beef, first could not believe his eyes, then asked for information, then suggested it, next remonstrated, and finally swore that he must take mustard. Now, the underlying motive here was not vanity or conceit, or a desire to set people right; but extreme disquiet at the existence of what he strongly believed to be error going on before his eyes. The disquiet caused him pain. He wanted to get rid of it, but did not want to leave the room, and could not order the stranger to do so; consequently, he was reduced to the remaining alternative, of trying to force the stranger to take mustard. The same motive operates, I am convinced, oftener than conceit, when one corrects an error in another younger than himself, or undertakes to show another how to do a thing in "the right way;" just as giving in charity on the street, is said to arise more from the desire of the giver to relieve his own pain, than that of the beggar.

It operates more often than is suspected in the missionary spirit that sends men to preach to the

heathen. An account of savage errors is heard, of their cruelty, for example, to their own old, or women, or children, that arises from these errors; then comes a consciousness that they could do something to rectify these errors.

“ Shall we whose souls are lighted
With wisdom from on high,
Shall we to men benighted,
The lamp of life deny.”

When the words are sung they ring in the ears of the young clergyman as a call to make these people better and happier, and his own pain is so great that they should not be so, that he finally determines to be a missionary.

Perhaps, it is a good thing that error causes disquiet. Much that is done would not be done were all imbued with the spirit of *laissez aller*, which says, “What is the difference? If you see error let it alone so long as it does not hurt you.” This may be a good doctrine for the man who thinks only of himself; but for the altruist, it is a heresy so rank as to cause infinite pain.

CHAPTER XIX.

JUDGMENT.

WE can now understand why a good judgment is generally associated with age. Age, in the first place, *cæteris paribus*, implies a matured and digested education. Many men, and still more their friends, are under the impression they have acquired an education when they have taken a university degree. They have, on the contrary, only laid the foundation of an education by acquiring a certain number of facts; and what is of much more importance, by training their minds for the education of life that is to come year after year in their profession. For just as it took some years to place them where they are now, so will it take them more years to place them where their seniors are, who have been students all their lives. By this means the mind is made capable of judging. But more is required, as was noticed above. The data should be complete and thoroughly known.

Now, besides education requiring years to get, or to cause data to be understood, there is something else demanded, which is experience. But this is essentially a thing that cannot be got in a day or a year. Only years can give experience, because only efflux of time can put one in all the various positions one is called upon to occupy in a lifetime. Until, then, a man has occupied these positions, he cannot

have had the experience. Until the various questions with which he has had to deal have been brought before him, he cannot have had experience in dealing with them. Young people then, cannot be good judges, from lack of experience. When a question arises, they are compelled to say that it has come before them for the first time. Their feelings and emotions influence them also, more than those of their elders who can view things not only in a calmer, but in a more cautious light.

We find then, that our judges, and rightly so, are taken from the senior members of the bar; that there is in the church a limit of age, under which no priest may be made a bishop, because much the same qualities are demanded from him as from the judge; that in politics, unless a man exhibits abilities far above the average, he is not chosen for office until his judgment is more or less matured. In short, we find that for all positions where the special energy of youth is not required, men and women are chosen who are fitted for them by education, and whose judgments are matured by experience. Aristotle teaches the same in his ethics. He says (Bk. VI. 8), "Now this is a proof of what we have said, that young men become geometers and mathematicians, and wise in things of this kind; but no young man appears to become prudent. And the reason of this is that prudence is of particulars, and the knowledge of particulars accrues by experience alone; and the young man has not experience, for length of time is the only thing that will cause experience."

As the judgment requires not only education, but years of experience, it is one of the powers of the

mind last brought to perfection. Consequently, the young need not repine because their judgments are not better. They might just as well repine because their education is not complete, or because they are not seniors in years. Work consistently done day after day, and time will soon cure both; for the latter flies so fast, that before one can realise it, the recollections of the halcyon days of youth are represented, as the Persian proverb tells us, by a sigh.

Before leaving the subject of the judgment, a word upon another form of its action is necessary. This is the rapidity with which a judgment is formed in the mind between two or more courses of action, when extreme haste in action is required. The judgment here works with such lightning-like rapidity, that one acts in an emergency so instantaneously as apparently not to have given any time for the judgment to work at all. It did, however, of course, as one finds upon thinking over the matter afterwards, to consider whether what was done was the best that could have been done.

For example, two women who are each alone, meet with the same accident of setting their inflammable clothing alight. One instantly seizes a rug or similar article, wraps it hastily round the burning garments, and with it crushes out the fire with her hands. She saves her life, and has a few and possibly not very serious burns. The other, frightened beyond conception by the horror of her situation, rushes into the street shrieking for help, and fanning the flames as she runs. Before help can reach her, she is burned beyond the possibility of recovery.

What is the difference between the two cases?

The first knew her danger just as much as the second, but it awakened in her the strongest instinct of self preservation; her judgment told her what to do, she obeyed it, and was saved. In the second case, her fear paralysed her judgment; she did the wrong thing and was lost.

We see, then, from this, that what is called presence of mind consists, in allowing the judgment an instant to act by sternly repressing fear. Men call it "Keeping cool" in danger, which means the same thing, that is the repression of fear to let the judgment act. Those who can do it, are naturally the most useful in times of danger for themselves and others. That, however, they are in a minority, ordinarily speaking, may be seen by reading of how the multitude of unfortunates acted in any great catastrophe; for example, the burning of a full theatre, when hundreds of lives are lost simply by the recklessness of the terrified. Had the audience gone out in an orderly way, the building could have been emptied in three or four minutes, and no life been lost; but an insane rush for the doors prevents any from getting out, and all are lost.

Presence of mind can be cultivated. This can be done by thinking of what is best to be done in each emergency, and remembering, and determining to act upon it should the occasion arise. One will then *know what to do*. Presence of mind is a form of courage. Now, courage has been defined by Aristotle in his Economics to be knowing what to do when in danger. No definition could be more correct. This is why a mob of a thousand men indiscriminately armed, will fly from two hundred regular soldiers. But take the very same one thou-

sand men, drill and arm them till they are regulars, and then oppose them to the same two hundred regulars. They would laugh at running away, because they know how to defend themselves or *what to do* in danger. So is it with presence of mind. The man who has thought of what to do in most emergencies, and determined to do it, will do the right thing when the time comes.

The lightning action of rapidity of judgment, can be seen in thousands of ways in animals, as well as in ourselves. See how rapidly it acts in a fight between two fox terriers, which are not simply snapping haphazard at each other's faces, but where every movement is attack or parry, till one gets a grip. Or see how rapidly it acts in men, for example, during games. An accomplished batsman when opposed by a fast bowler, has not much time to judge when to hit, or how to stop each ball as it comes, no two exactly alike; yet so correct is his judgment, that he may be at the wickets for hours. So with the skilful tennis player. In swift service and returns he has not much time to judge where the ball will come; yet he meets it, strikes it in a certain way, places it where he wants to, at the speed he desires to give it; and all by an instantaneous complex judgment.

Instances need not, however, be multiplied, as they are within the ken of each of us over and over again, every day of our lives. So much is it the case, that the more one thinks of it, and observes this and the other marvellous workings of the powers of our minds; the more are we lost in wonder at the Omnipotence of the great Infinite, who could so easily call such activities into being, and endow their owners with the power of continuing their race.

CHAPTER XX.

REASONING.

REASON is commonly spoken of as a faculty of the mind. It is said to be that faculty which enables us to draw conclusions from given data, which makes us want to understand the why and wherefore of things; and as such to be different from memory and imagination, for example, which are supposed to occupy a lower plane. It is said, again, to be the faculty which pre-eminently distinguishes us from inferior animals.

Now, I must confess to a difficulty in understanding reason as a separate special faculty of the mind. It appears to me to be synonymous with the power of forming judgments, and reasoning to be the power of drawing conclusions from given premises. If upon going to the window one sees that a fresh wind is blowing from the south-west, and that the sky is heavily overcast, it does not appear to me to need a special faculty of the mind to draw the conclusion that it will rain. One's knowledge of the wind and clouds is sufficient for that, as can easily be seen if one meets another who has never paid attention to forecasting the weather. Such a one with, perhaps, just as good reasoning

powers as you, may not know that these signs mean rain.

One knows again, that 20 plus 40 equals 60, and that food is necessary to sustain life; but it would be difficult to distinguish in these three instances that the power, which tells us of the coming rain, is different to that which tells us the other two. It would seem, then, that reason is not a separate faculty of the mind, but rather the name given to that ordinary power the mind has resulting from its educational experiences, of determining that certain causes must give certain consequent effects.

But again, reason is said to be the great distinguishing characteristic between man and inferior animals. It may, however, be permitted to ask, In what way? Surely in no other way than in degree of power. Some forty years ago the belief still survived that if a man did an action, it was done as a result of his possession of reason; but if a cat did the same thing it was done by instinct. A river, for example, overflowed its banks. A man saw the water would reach his barn and drown his cattle. He instantly set about removing them to higher ground to save them. A cat had her kittens in the same barn, and she instantly set about carrying them each by the back of its neck to a place of safety. Reason in the man it is said, and instinct in the cat. Rather just as much reason in the one case as in the other. If you attempt to throw a lad into a canal he will resist; a cat will resist with all its power of teeth and claws a similar murderous attempt upon her. Again, just as much reason in the one case as in the other, for the cat knows the danger of water to life just as well as the lad.

It is quite true that there are many things in inferior creatures which must be instinctive, as the building of the honey-comb by the bee in hexagonal cells for its honey, the best-shaped cells, as can be mathematically demonstrated, for resisting pressure on all sides; but it is none the less true that there are many of their actions which they learn from their fellows by imitation, and by the result of their educational experience of matter. They reason, then, in their way as we do in ours, and often manifest powers beyond ours. The explanation is the simple one, that reason is not a special faculty, but as we have seen the power of understanding what is commonly called the law of cause and effect.

A small dog meeting a large one shows by his every action that he admits to the larger one his greater size and power, and trusts to his mercy not to injure him. He cannot speak, and would not be able to analyse his own reasoning if he could, but if we do it for him, his actions mean this:—

Large dogs are dangerous.

This is a large dog.

This dog is dangerous.

He consequently crouches till he is allowed to pass, when he runs. Later on however, he meets a dog smaller than himself, when, like the unmerciful servant in the parable, he seizes him by the throat. What is all this but reason learnt by experience, and a very acute manifestation of it also. No, there are great distinguishing characteristics between man and animals, but the principal one is not reason. Each has it, and the difference is but one of degree.

But although reason is not a special faculty in itself, yet it is a power of the mind more cultivated

in some than in others. Just as most minds have a special preference, there are some that naturally have a fondness for philosophic thought. The reasoning powers of their minds, then, are exercised early; and the more they read and learn the more everything is cast into this crucible. Naturally then, they take to reasoning, which is the ordinary outcome of this power of the mind.

Above a short definition of reasoning was given, as the drawing of conclusions from premises. But the chain may be a long one. A truth may be stated which is by no means axiomatic. It has consequently, to be proved. Now, it can only be demonstrated by a succession of truths, each arising naturally out of its predecessor, and depending upon it, till the only conclusion possible is reached. This is reasoning, and one kind of example open to all that can be given, is any proposition of Euclid, where we may have either direct or indirect mathematical demonstration, and where we find the additional beauty, that each proposition forms a stepping stone for the next. In this study, nothing strikes the mind of the thoughtful lad more than the inexorable compulsion by which one is forced to admit the truth of each statement. Or a chain of reasoning can be seen in a court of law, where the skilful advocate, having a witness to prove each step, shows the prisoner at the bar to be the guilty man.

Now, there is little doubt that when we reason ordinarily we do so in syllogisms, whether we are conscious of it or not. By this is meant that we argue or reason that way naturally, although we may not know the meaning of the word syllogism; just as millions of people speak their own language with-

out knowing anything of its grammar. To understand this better however, let us for the sake of those who have not read logic, which is the analysis of reasoning, notice what a syllogism is.

In its simplest form the categorical syllogism is made up of two premises, the first called the major, and the second the minor, from which a conclusion is drawn. The major is a statement of a general truth universally admitted. The minor takes a particular case of the subject of the major, which must then necessarily be included in the major, and from this the conclusion is drawn, that what was affirmed of the general subject in the major must now be predicated of the particular case in the minor. Take an instance:—

All men are animals (major).

Cyrus is a man (minor).

Cyrus is an animal (conclusion).

Now be it observed there is no getting rid of this conclusion. It follows compulsorily from the premises. The major states of all men that they are animals. Now "all" is a universal or general; it has no exception. When the minor premise, therefore, states that Cyrus is a man, Cyrus must be included in all men; and consequently, whatever is stated of all men must be stated of Cyrus. The conclusion follows perforce then, that Cyrus is an animal.

Take another instance:—

All criminals deserve punishment.

A murderer is a criminal.

A murderer deserves punishment.

Now, if the major and minor premises are allowed to be true, there is again, no escaping the conclusion.

Aristotle was, it is believed, the one who first analysed reasoning to show that unconsciously to one's self it proceeds in this way. Generally speaking it is agreed that he was right. I have said generally, because here and there one has been found to dispute it. Those who have not read Locke will be surprised to hear that he does this, and attempts to prove his view. He says (Vol. II, 284, section 4), "*Syllogism not the great Instrument of Reason*. There is one thing more which I shall desire to be considered concerning reason, and that is whether syllogism, as is generally thought, be the proper instrument of it, and the usefulest way of exercising this faculty. The causes I have to doubt are these:—

“First, because syllogism serves our reason, but in one only of the fore-mentioned parts of it; and that is, to show the connection of the proofs in any one instance, and no more; but in this it is of no great use, since the mind can perceive such connection, where it really is, as easily—nay, perhaps better—without it.

“If we will observe the actings of our own minds, we shall find that we reason best and clearest when we only observe the connection of the proof, without reducing our thoughts to any rule of syllogism. And therefore we may take notice, that there are many men that reason exceeding clear and rightly, who know not how to make a syllogism. He that will look into many parts of Asia and America will find men reason there, perhaps, as acutely as himself, who yet never heard of a syllogism, nor can reduce any one argument to those forms: and I believe scarce any one makes syllogisms in reasoning within

himself. Indeed, syllogism is made use of on occasion to discover a fallacy in a rhetorical flourish, or cunningly wrapped up in a smooth period; and, stripping an absurdity of the cover of wit and good language, show it in its naked deformity. But the weakness or fallacy of such a loose discourse it shows, by the artificial form it is put into, only to those who thoroughly studied mode and figure, and have so examined the many ways that three propositions may be put together, as to know which of them does certainly conclude right, and which not, and upon what grounds it is that they do so. All who have so far considered syllogism as to see the reason why in three propositions laid together in one form the conclusion will be certainly right, but in another not certainly so, I grant are certain of the conclusion they draw from the premises in the allowed modes and figures. But they who have not so far looked into these forms are not sure, by virtue of syllogism, that the conclusion certainly follows from the premises; they only take it to be so by an implicit faith in their teachers, and a confidence in those forms of argumentation; but this is still but believing, not being certain. Now if, of all mankind, those who can make syllogisms are extremely few in comparison of those who cannot; and if, of those few who have been taught logic, there is but a very small number who do any more than believe that syllogisms, in the allowed modes and figures, do conclude right, without knowing certainly that they do so, if syllogisms must be taken for the only proper instrument of reason and means of knowledge, it will follow, that before Aristotle, there was not one man that did or could know anything by

reason; and that, since the invention of syllogism, there is not one of ten thousand that doth.

“ But God has not been so sparing to men to make them barely two-legged creatures, and left it to Aristotle to make them rational, i.e., those few of them that he could get so to examine the grounds of syllogisms, as to see that, in above three-score ways, three propositions may be laid together, there are but about fourteen wherein one may be sure that the conclusion is right, and upon what grounds it is, that, in these few, the conclusion is certain and in the other not. God has been more bountiful to mankind than so. He has given them a mind that can reason, without being instructed in methods of syllogizing: the understanding is not taught to reason by these rules: it has a native faculty to perceive the coherence or incoherence of its ideas, and can range them right, without any such perplexing repetitions. I say not this any way to lessen Aristotle, whom I look on as one of the greatest men amongst the ancients; whose large views, acuteness, and penetration of thought and strength of judgment few have equalled; and who in this very invention of forms of argumentation, wherein the conclusion may be shown to be rightly inferred, did great service against those who were not ashamed to deny anything. And I readily own, that all right reasoning may be reduced to his forms of syllogism. But yet I think, without any diminution to him, I may truly say, that they are not the only, nor the best way, of reasoning, for the leading of those into truth who are willing to find it, and desire to make the best use they may of their reason, for the attainment of knowledge. And he

himself, it is plain, found out some forms to be conclusive, and others not, not by the forms themselves, but by the original way of knowledge, *i.e.*, by the visible agreement of ideas. Tell a country gentlewoman that the wind is south-west, and the weather lowering, and likely to rain, and she will easily understand it is not safe for her to go abroad thin clad in such a day, after a fever; she clearly sees the probable connection of all these, *viz.*, south-west wind and clouds, rain, wetting, taking cold, relapse and danger of death, without tying them together in those artificial and cumbersome fetters of several syllogisms, that clog and hinder the mind, which proceeds from one part to another quicker and clearer without them; and the probability which she easily perceives in things thus in their native state would be quite lost if this argument were managed learnedly and proposed in mode and figure. For it very often confounds the connection; and, I think, every one will perceive in mathematical demonstrations, that the knowledge gained thereby comes shortest and clearest without syllogisms."

Now let us take his own case here to see if the country gentlewoman did not reason in syllogistic method, without being conscious of it. If we think of it we shall find that our minds delight in generals. We like to get all of these that we can, and store them away in our memories as knowledge. The reason of this is, that by means of these we can settle each particular case as it comes up. Take instances. All men are mortal. All Englishmen are white. All Chinamen are yellow. All Abyssinians are black, etc.

Now, bearing these generals in our minds and

settling particular cases by them is nothing more nor less than unconscious syllogizing. For example, A says: "James Brown is dead. It is very sad."

B. "How old was he?"

A. "Seventy-five."

B. "Ah! well, he had to die some time; we are all mortal."

Now this is but stating in the ordinary way of conversation the following:—

All men are mortal.

James Brown is a man.

James Brown is mortal. Or

All men must die.

James Brown is a man.

James Brown must die.

Let us now return to our country gentlewoman. She has either by education or observation stored the following general in her mind:—Days when the wind is south-west are dangerous for invalids. On any day, then, when she thinks of going out, and walking to the window finds the wind is south-west and the sky lowering, she says to herself, "I will not go out to-day;" what is the process of her thoughts? It could not be anything else than this:—

Days when the wind is south-west are dangerous for invalids.

To-day the wind is from the south-west.

To-day is dangerous for invalids.

She may never have heard of a syllogistic method of reasoning, she may never have attempted to analyse her thoughts, but does it follow from this that she does not reason unconsciously in a syllogistic way? Certainly not. An illiterate man may at

times make use of a long sentence, but does it follow that he is not speaking English because he cannot analyse his sentence, and grammatically parse every word in it? Certainly not. It was pointed out very early in this work that analysis is a process that comes late in education, and that many live and die without making much use of it. It certainly is a blessing that it is not necessary for ordinary life, or we would be, indeed, in a parlous state if we could neither speak nor reason till we knew grammar and logic.

Let it not be thought by these observations to be meant, that the mind in reasoning unconsciously always goes through major and minor premise to the conclusion. By no means. What it does is to jump from the general of the major premise to the particular in the conclusion, as:—

All men must die.

James Brown must die. Or

The wind is from the south-west.

It is a dangerous day for invalids.

But let us take one more conversational instance. A says to B, "This horse is larger than that." B looks at the two horses, and his eyes being experienced in measurements, as the eyes of all must be more or less, replies that it is. In other words, he assents to a truth apparently self-evident, but really founded upon a general lying in his mind, and, perhaps, never put into words. This is, the greater is more than the less, or applied specifically to horses, we get:—

Greater horses are larger than smaller ones.

This is a greater horse.

This is larger than the smaller horse.

CHAPTER XXI.

REASONING.

THE instances given above to show that we reason syllogistically are of the class usually known as the common or deductive syllogism. It may then, be said that there are other methods of reasoning, as the inductive, the comparative, or proportionate, and the analogical. Does the syllogism enter into these methods of reasoning? Unquestionably it does, but let us see, beginning with the inductive.

The common deductive syllogism proceeds as we have seen from the general to the particular. The inductive method of reasoning—again for those who have not read logic—reverses this process and from a number of like particulars induces a general. Here then, is an inductive syllogism:—

Animals possessing all human qualities are included in the term man.

The individuals of the human race possess all human qualities.

The individuals of the human race are included in the term man.

Now the conclusion follows as inevitably here from the premises as in the deductive syllogism; but instead of going from a general to a particular, we have gone from many similar particulars to a general. The particulars, however, must all possess the same attributes, “human qualities,” or no general could be induced.

Let us now take the proportionate or comparative, as there have been writers who contended that our reasoning is more by comparison than by syllogism. A little consideration, however, will show us that underlying the comparison, or proportion, is the syllogism.

We take the proportion, thus, $12:2::36:6$. The lad at school is taught to place the figures in this way, the meaning of the dots, and how, given the first three, to find the fourth. He is told, further, that any four figures placed in this way, which fulfil the conditions, will be a correct proportion. What are the conditions? We would naturally expect to find them in a general definition of proportion, which it will be seen at once is but the major premise of a syllogism, by which all the particular cases given may be proved. Here is one definition. Four numbers, when the first stands to the second in the same relation as the third to the fourth, are in proportion to each other. Let us now take this definition and make it a major premise, and we can see at once how the lad who has never heard the word syllogism, but has the definition of proportion committed to memory, recognizes syllogistically a proportion when he sees one.

Four numbers, when the first stands to the second in the same relation as the third to the fourth, are in proportion to each other.

$12:2::36:6$ are four numbers where the first stands to the second, in the same relation as the third to the fourth.

Therefore $12:2::36:6$ are four numbers in proportion to each other.

In the same way he knows that $4:2::6:3$ is a proportion.

Take another definition of proportion, and, of course, it comes to the same thing by making the definition the major premise.

Four numbers so placed that the product of the means is equal to the product of the extremes, are in proportion.

12:2::36:6 are four numbers so placed that the product of the means is equal to the product of the extremes.

Therefore 12:2::36:6 are a proportion.

If now we pass to analogy we shall find the syllogism underlying that also. This will appear at once when we recognize analogy as but another form of proportion. If we take the first definition given for proportion, and for "numbers" substitute "things;" and for "proportion" substitute "analogy;" the definition will answer perfectly. Let us take a case. If I remember right, Butler gives in effect an analogy, that if a moment's sin in youth may entail a life's punishment in this world, though a man live ninety years, it is reasonable to say that a life's sins may entail a long punishment in the next world.

Now, here we have four things in a proportionate relation. Let us so place them, and to save writing make the definition the major premise of a syllogism. The four things are:—A moment's sin: a life's sins::a life's punishment:a long punishment. Syllogistically placed we get:—

Four things, when the first stands to the second in the same relation as the third to the fourth, are an analogy.

But a moment's sin:a life's sins::a life's punishment:a long punishment, are four

things where the first stands in the same relation to the second, as the third to the fourth.

Therefore, these four things are an analogy. No observation is made, let it be noted, whether this is a just analogy. It is simply used as an illustration.

Concerning analogies Whately says in his *Rhetoric* (Part I., chapter II., 7), "In fact, it may be said almost without qualification that 'Wisdom consists in the ready and accurate perception of analogies.' Without the former quality, knowledge of the past is nearly uninformative; without the latter it is deceptive." It may be interesting to note also in passing the teaching of Euclides upon reasoning by comparison. "He also rejected all that sort of reasoning which proceeds on comparison, saying that it must be founded either on things which are like, or on things which are unlike. If on things which are like, then it is better to reason about the things themselves; and if on things which are unlike, then the comparison is quite useless (Dio. Laert. Euclides).

From these instances we learn that all general definitions are but the major premise of a syllogism, by which any particular included in it may be proved, for example: The names of things are common nouns.

Chair is the name of a thing;

Chair is a common noun.

Or, again, Land entirely surrounded by water is an island.

Australia is land entirely surrounded by water;

Australia is an island.

Lastly, it does not seem to me correct to say, as

Locke does, that Aristotle "invented" the syllogism. Rather he observed how we naturally reason in our thoughts, and by analysis found it was the way he called syllogistic.

It will now, I think, be apparent how largely the syllogism enters into our mental processes of reasoning whether we know it or not. Those who desire to pursue the subject further, can do so in any handbook of logic; but I am sure that the more they look into it, the more convinced will they become of the wisdom of the great man who so long ago analysed our reasoning into syllogisms.

We have seen that the object of all sound reasoning is to prove truths that are not at once self-evident, and that various methods are used to do this according to what is required by the circumstances. As instances, then, of the syllogisms noticed, let us take first the ordinary deductive form always employed; when a general truth being admitted, the argument is used to demonstrate it of a particular case.

A preacher, for example, taking the text, "God is love," that is God loves all things, may prove that God loves the individual man, which individual may be you. Many sermons, again, are simply elaborative of the truth in the text, for example: "As Moses lifted up the serpent in the wilderness, etc." (S. John iii., 14-15.), where there are three statements, each of which may be elaborated; I., The historical incident; II., The event prefigured; and III., The object of this event.

Again, a course of reasoning may be inductive, that is, as we have seen, a number of particulars may be brought forward and proved, which, when

taken together, will be held to prove the truth of the general sought to be established. The Colonial Secretary, for example, wants a vote of confidence in the Government passed at a large public meeting. What does he do? He is expected to speak of his own department with which he is necessarily familiar, and so he takes up the Colonies one after the other, South Africa, Australia, New Zealand, Canada, etc., to show that in each case the Government has done the best that could be done under the circumstances; that, consequently, the Colonies are peaceful, prosperous and happy; that, consequently, the present Government that made them so, is deserving of confidence; and this naturally implies, what of course is never said by himself, that the then Colonial Secretary is the right man for the post. The result of the successful induction is an enthusiastic vote of confidence in the Government, and another of thanks to the Right Honourable speaker.

All this kind of reasoning and discourse is genuine, that is, true according to the speaker's belief. There is, however, the kind which argues for victory, whether it is the truth or not. This is the reasoning of the law courts, where each counsel brings forward only what is useful to his own side, and does his best to keep out of sight what may injure it, or benefit the other side. This is not so difficult as would at first sight appear, because in most cases there is something to be said on both sides; while in some cases, it is so difficult to arrive at the side on which the truth lies, that a judge with years of experience at the bar and on the bench may reserve judgment for a time.

But besides these, there is another kind of rea-

soning, sophistry, which deliberately argues with a view of concealing the truth, and trapping the opponent into an erroneous admission. Sophistry was held in great repute among the ancient Greek philosophers, by whom it was considered an exhibition of extreme cleverness to defeat an adversary. All philosophers were supposed then to be ready to answer all difficult questions, and if necessary, to silence an adversary. We have instances of these attempts made upon our Lord in St. Matthew xxii., and of his turning upon his opponents with some of the most scathing words ever uttered, in Chapter xxiii.

Generally the sophist proceeded with his opponent by a pre-arranged dialogue, and as the answers expected were simply yes or no, by using a word for example, in one sense in the premises, and in another in the conclusion some time after, it was not difficult to catch him tripping. Sometimes again, the subject was so repeatedly divided and sub-divided, that it was impossible for the listener to keep the whole train of reasoning in his mind. Various fallacies difficult to detect were made use of, and that they could be troublesome, may be seen from the following little catch put as shortly as possible.

Your friend will admit that as he is a man he cannot be anything else. You say:

Either you are a man, or not a man? You must be one or the other, and if not one, you are the other?

Yes.

Then either you are an ass or not an ass, as you must be one of the two, you cannot be both?

Yes.

But you are not an ass?

No.

But we agreed that if you are not one of the two things you must be the other?

Yes.

Then you are an ass, for if you are not one, you must be the other?

It would seem so.

The various fallacies into which men may inadvertently fall, or which as sophists they purposely make use of, may be found fully discussed in treatises upon logic, ancient and modern, and to them the reader is referred. Enough has been said upon them here to enable the reader to see the difference between the true and false; and to show that in some cases it may be a fact that, as the French diplomatist said, language was given us to conceal our thoughts.

CHAPTER XXII.

IMAGINATION.

USING the word imagination in its first intention, it means, as the word implies, the power to reproduce an image—*imago*—in the mind, of things—entities—we have or have not seen. A man, for example, conversed with a friend in the morning. In the afternoon, sitting in his own room, he can close his eyes and see in his mind a picture more or less distinct of his friend. He can describe his dress, his face and gestures; and by directing his attention to it, he may be able to reproduce the sound of his voice.

With reference to things we have never seen, say with some China, by having read of it, seen maps of it, and pictures of its towns and inhabitants, with their national dress, and having met Chinamen, we can imagine what the country, or some town looks like. In this picture of the imagination however, it will generally be found that the town imagined is a recollection of one or more photographs of towns.

Our imagination, like thought in general, as was observed before, is limited to experience. We consequently, cannot imagine anything which does not, or will not exist. As this statement is very liable to be misunderstood, I will try to make it plain. One says, then, that he can imagine green

gold, and there is no such substance. No, but gold exists and green exists, consequently, one can imagine a known colour not its own, reflected by a certain substance. This therefore, is not a genuine test. But here is one. Imagine, "Trobot." Nothing shall be said of it; its name simply is given; who can imagine it? Take another case. One says that he can imagine creatures that never existed. Quite true, but who can imagine them with parts that never existed? Give your creature eyes in the back of its head, horns, hoofs and a tail never before combined in any animal. You only imagine a whole made up of known parts. But give an imaginary creature an imaginary name, and try to imagine it made up of parts not compounded of any known substance, or made like any known shape or thing, and the impossibility of it at once appears. We cannot imagine what does not exist or has not existed, for it is trying to imagine the absolutely unknown. Try, for example, to imagine creatures living in Venus of unknown shape, and absolutely unknown substance; it is impossible.

Now some writers upon the human mind speak of the imagination as if it were a special faculty of the mind. From the above, however it is hoped, will appear what I am anxious to enforce, that imagination is not a special faculty at all, but simply the memory of sight, that is, the memory of things seen. If a man with a musical ear hear a tune two or three times, without any effort upon his part the tune imprints itself upon his memory, and he is able to sing it, or play it upon an instrument when he pleases. So he has no trouble remembering the sound of the voices of his friends, and can imitate

them in their absence. But a musical ear, in a greater or less degree, is so common, that the exceptions in humanity are those who are absolutely devoid of it. Yet this memory of sounds is only ordinary memory. If, again, another fond of eating can recall tastes of fruits, or another smells, or another the sensation of rough or smooth, all this is not done by special faculties, but by simple memory, just as one can pronounce the name of an absent friend.

So is it with imagination, which is the memory of sight.* One can shut one's eyes and reproduce a familiar part of London, or Manchester, or Dublin, or Paris; because one has repeatedly seen these places, or pictures of them; and no special faculty is required to do it; it is simply memory.

There are, of course, great differences in this memory of sight, or imagination in different individuals, as we noticed when dealing with the senses; just as there are differences in memories for sounds. An artist who has spent his life in drawing and painting, must have the memory of sight developed to a great degree; so much so, that he can easily pass from the stage of having an animal or locality in his imagination, to representing it upon paper or canvas; but others, who have not studied this art, can have very vivid imaginations also.

By means of imagination one can, then, picture to himself a scene which does not exist in reality, that is, in the arrangement of its parts; and if an artist he can put it upon canvas. He can, for example, draw a farmhouse, surround it with trees, and the grounds with hedges, put in some animals,

* A blind man's other senses are his sight for imagination.

and persons, a stream of water, etc., and make a very pretty painting. If asked what place it is, he replies that it is an imaginary painting out of his own head. But here he is doing by means of what his eyes have seen, what the musician is doing by means of what his ears have heard, when he is composing a new tune. Each works according to the rules of his art, and each arranges known things in a way they were never associated before.

As the sense of sight is one of the greatest blessings a merciful Creator has conferred upon men and animals, so it is a great blessing that he has made learning by it so easy. By this is meant the deep impression—to use the words commonly employed—external objects make upon our memories by means of sight. With it may be said, no effort upon our own part, we consequently learn and remember localities, the faces of friends, etc., just as a man with a musical ear *must learn* in spite of himself the tunes he hears. In each case we cannot help it, and consequently life is made easy for the most illiterate. For what would life be if when we saw an object or locality we had to spend as much time trying to learn it, as at the age of twelve we spent upon the *pons asinorum*?

That we learn ordinary things so much more easily and quickly by the sense of sight than in any other way, is why illustrated papers are so popular, and have of late years so increased in number. Take for example, a photograph, or illustration of a field of battle. In a few moments we see all the details, which without an illustration would take columns of a newspaper to describe as minutely as it is seen. This fact is noticed by Horace.

*Segnius irritant animos demissa per aures,
Quam quæ sunt oculis subjecta fidelibus.*

When we descend in the scale of civilized beings to savages and to inferior animals, we find that for their safety and convenience their memory of sight or imagination is stronger than our own. Witness, in proof of this, the wonderful true stories of dogs taken a long way from home after sale, for example, who have unaided found their way back again. Or take the case of homing or carrier pigeons, who it is plain, have observed something to guide them by their habit when liberated, of circling round higher and higher till they learn the direction they must take for home. Every horseman knows too, that when lost, if he cease to guide his horse the creature will take the direction for home. Some years ago in a country place I had to drive eight miles to reach a house never visited by me before. I arrived at seven o'clock in the evening, when it was quite dark, and remained only an hour. A month afterwards, when driving again along the same road, I was passing the gate of this house at noon on a bright day, not thinking of my former visit till reminded of it by my horse stopping at the gate.

But besides this first use of the word imagination, it is used also in a second sense, which is commonly called word painting. Many men who are speakers, writers, or poets, have what is called vivid imaginations; and either by nature or desire let it be seen in their public efforts. As in this speaking or writing the danger of perverting the truth by the introduction of too much imagination was early seen, and as this is essentially a practical age, in most kinds of speaking and writing there is not

nearly so much of it as there used to be. Hume says in his *Treatise of Human Nature* (Book I., Part 4), "Nothing is more dangerous to reason than the flights of imagination, and nothing has been the occasion of more mistakes among philosophers. Men of bright fancies may in this respect be compared to those angels whom the scriptures represent as covering their eyes with their wings."

Direct speaking and writing to the point please the educated now more than flights of the imagination, while that weak imitation of it, a profusion of unnecessary adjectives, in subjects like politics and religion, is simply intolerable except to the half-educated who love "a flowery speaker." In writing of nature however, word painting is especially pleasant when effectively done by a skilled naturalist; while in poetry the greatest licence is allowed, and in a poet of the highest order is delightful. Instances need not be given, for poets are the same in all ages, from the author of the book of Job and Deborah, to David—for example, the lament over Saul and Jonathan—Homer, Shakespeare and Tennyson. In imagination, however, none of them seem to me to surpass Ossian. Assuming the poems to be genuine, they are wonderful for the period they are said to come from. Whenever or wherever they come from, they are beautiful flights of imagery. Take for example, the apostrophe to the Sun, which concludes Carthor.

"O, thou that rollest above, round as the shield of my fathers! Whence are thy beams, O Sun! thy everlasting light? Thou comest forth in thy awful beauty; the stars hide themselves in the sky, the moon, cold and pale, sinks in the western wave;

but thou thyself movest alone. Who can be a companion of thy course? The oaks of the mountains fall; the mountains themselves decay with years; the ocean shrinks and grows again; the moon herself is lost in heaven; but thou art for ever the same rejoicing in the brightness of thy course. When the world is dark with tempests, when thunder rolls and lightning flies, thou lookest in thy beauty from the clouds, and laughest at the storm. But to Ossian thou lookest in vain, for he beholds thy beams no more; whether thy yellow hair flows on the eastern clouds, or thou tremblest at the gates of the west. But thou art, perhaps, like me for a season; thy years will have an end. Thou shalt sleep in thy clouds careless of the voice of the morning. Exult, then, O Sun, in the strength of thy youth! Age is dark and unlovely; it is like the glimmering light of the moon, when it shines through broken clouds, and the mist is on the hills; the blast of the north is on the plain, the traveller shrinks in the midst of his journey."

CHAPTER XXIII.

DREAMS.

It was noticed above that the mind is always busy, that thought is never idle. Locke opposes this idea very strongly. He says (Book II. 18, Vol. I.):

“I would be glad also to learn from these men, who so confidently pronounce that the human soul, or, which is all one, that a man always thinks, how they come to know it, nay, how they come to know that they themselves think, when they themselves do not perceive it. This, I am afraid, is to be sure without proofs, and to know without perceiving; it is, I suspect, a confused notion taken up to serve an hypothesis, and none of those clear truths that either their own evidence forces us to admit, or common experience makes it impudence to deny. For the most that can be said of it is, that it is possible the soul may always think, but not always retain it in memory; and I say, it is as possible that the soul may not always think, and much more probable that it should sometimes not think, than that it should often think, and that a long while together, and not be conscious to itself the next moment after that it had thought.”

“To suppose the soul to think, and the man not to perceive it is, as has been said, to make two persons in one man; and if one considers well these men's way of speaking, one should be led into a

suspicion that they do so; for they who tell us that the soul always thinks, do never, that I remember, say that a man always thinks. Can the soul think and not the man? Or a man think, and not be conscious of it? This, perhaps, would be suspected of jargon in others," etc., etc.

On the other hand, Sir W. Hamilton in his *Metaphysics* (p. 225), holds just as strongly the constant activity of the mind whether consciousness is present or not. He says, "The observations I have hitherto made tend only to establish the fact, that the mind is never wholly inactive, and that we are never wholly unconscious of its activity. Of the degree and character of that activity, I, at present, say nothing; this may form the subject of our future consideration. But in confirmation of the opinion I have now hazarded, I have great pleasure in quoting to you the substance of a remarkable essay on sleep by one of the most distinguished of the philosophers of France, living when the extract was made, but now, unfortunately, lost to the science of mind. I refer to M. Jouffroy. . (*Mélanges*, p. 290), 'I have never well understood those who admit that in sleep the mind is dormant. When we dream, we are assuredly asleep, and assuredly also our mind is not asleep, because it thinks; it is, therefore, manifest, that the mind frequently wakes when the senses are in slumber. But this does not prove that it never sleeps along with them. To sleep is for the mind not to dream; and it is impossible to establish the fact that there are in sleep moments in which the mind does not dream. To have no recollection of our dreams, does not prove that we have not dreamt, for it can be often proved that we

have dreamt, although the dream has left no trace on our memory,''' etc., etc.

All who have attentively considered the matter must hold the view expressed by Sir W. Hamilton. Anyone, however, may prove it for themselves. There is no doubt that the mind is always busy when we are conscious; the doubt arises as to its activity when we are asleep. To learn, then, if the mind is busy during sleep, the intelligent reader has but to resolve to attend to his own experiences. Let him do this, first as to falling asleep.

When one composes one's self to sleep, unless the thoughts are directed they may wander at will, as in reverie. While thinking, the subject drops asleep, but is, of course, unaware of it. When he has slept say five minutes, something occurs to wake him. If he instantly thinks of his mind, he will find that by being awaked, he has been called away from some scene of which he was dreaming; and this will be followed by surprise that he had gone to sleep at all, for it seems to him but a moment since he was lying awake. If the reader is sufficiently interested to pursue the enquiry, he can arrange with some one to awake him—the awaking person to choose his own time so that it will be unexpected—shortly after he has dropped asleep.

Secondly, let the reader observe his mind instantly, after being awaked suddenly during the night, or upon awaking in the morning. In every case he will find himself dreaming, though a moment after the dream may be gone, and cannot be recalled. I have done this for over thirty years, and in every case, no matter how awakened, have always come out of a dream. Often, as every one knows,

the dream may be the awaking cause. One is falling from a height, and the final shock of crashing upon the ground wakes one with a start. The position of the body is changed, a feeling of relief comes that it was only a dream, and one sleeps again. Or one is pursued by a bull and awakes with a start, just before the horns strike the body for the toss. Here again, if one cannot verify for themselves, let them arrange to be awakened at unexpected times, and they will find themselves in every instance dreaming.

The reason the generality of persons do not notice that upon awaking they come out of a dream, as well as the reason why, if it is noticed, the dream is so soon forgotten, is that upon awaking—especially suddenly—the struggle of the mind is to realise where we are, what has awaked us, what is wanted, etc. The waking thoughts then, are turned from the sleeping ones as quickly as possible.

Dreams are only the reproductions of our waking thoughts, and if anything has made a deep impression upon the mind during the day, it is likely to be dreamt of at night. The wise man says, "A dream cometh through the multitude of business." No doubt he meant by it that business cares, and especially worries, bring troubled sleep. Every one who has had them knows the truth of this. The worst part of it is, too, that worry by day will often be repeated in sleep concerning the dreamer's work or profession. The anxious wife, or housekeeper Martha, will dream of guests pouring into the drawing-room for a dinner party when the cook is away, the butler ill, and nothing ready; and she herself and her husband not dressed to receive the

guests. The anxious barrister will dream that his case is called, the judge is on the bench, the jury present and all waiting for him to begin; but his solicitor has not come, he himself has not properly prepared the case, and cannot say a word. The parson dreams that a full congregation is waiting for him, and that he has arrived in the vestry where there are no robes, without his own, and even with no coat on, so that he cannot appear at all. The anxious schoolboy dreams that school is opened, but his tasks are not ready. The fantastic shapes that dreams take need not be enlarged upon, as everyone is aware of them without having read "Alice in Wonderland." Occasionally a dream may take a form, as if of malice prepense, to deceive the dreamer. Once when undergoing an examination, I remember being anxious to awake early to work. When morning came it brought a dream as vivid as the reality, that I had risen, dressed, and was hard at my work. Naturally peaceful sleep, which led to over-sleeping, was the result.

Thoughts drift on in dreams, because consciousness being absent, there is no thought control. If no outside influences are present, they pass on from peaceful to happy imaginings; or, often, according to digestion or the state of the health, to the horrible ones of nightmare. The circulation being affected has, as everyone knows, a great deal to do with frightful dreams.

But dreams may be caused by outside influences. When something affects a sense, but not sufficiently strongly to awaken the sleeper, it is instantly embodied in a dream. This may be proved, and has been, by experiment. Let a sleeper smell strong

spirits, and at once awaken him; spirits will be in his last dream in some way. Or let a slight smell of smoke come under the nose of the sleeper, and he will dream of a fire, but naturally, as everyone dreads a fire, the danger of instant awaking will be evident. The smell of roses held to the nose will induce pleasant dreams, and so on.

There is little doubt that children begin to dream as soon as they begin to think, and that one of their early difficulties is to separate vivid dreams from waking realities. Indeed, everyone knows that children often have expedients to prove to themselves they are awake. This shows that their little world of sleep is so real to them, that they find it hard to believe it is not real. Years ago one of my children fell asleep on the dining-room floor. I carried her to my dressing-room, and laying her upon the bed, proceeded softly to dress for the afternoon. After some twenty minutes, glancing towards the bed to see if she still slept, I was surprised to see her with large eyes following my every movement. Not a word was said on either side for a few moments, when the question came from the bed, "Papa, is I awake?" Here, plainly, was confusion between dreams and reality. The last the child remembered was the dining-room, the thoughts were busy all the time in dreams till the eyes were opened upon a totally different scene in another room, with no recollection of going there.

As everyone knows, a great deal of rubbish has been written about dreams, and is yet. This has come of course from the fact that many instances are recorded in the Bible of warnings given in dreams or visions by night. As there are many

people in the world who believe that miracles, or warnings of this kind, are just as likely to occur now as in the past, it is not surprising that a class of persons exists, who for their own purposes prey upon this belief. Accordingly the future may be foretold by dreams, or every dream will be realised, but generally by its opposite: and the unwary or ignorant are deceived, and lose their money.

But the possibility of deceit in this way is kept alive also by the well-authenticated instances, in many cases, of warnings in dreams having proved true. For example, a sister dreams on a certain night that her soldier brother in India has died of fever, or been killed in action. Perhaps the day before or after the dream he did die or was killed. The sister ever after believes the dream to have been a warning. It is, however, only a coincidence, for if one considers that one may have fifteen thousand dreams in forty years, it would be a strange thing if one out of them all did not come true. No one of course who believes in a Deity can deny the possibility of a dream being sent as a warning; the question is as to its probability. This does not seem to be great when one considers the small number heard of out of the 40,000,000 inhabiting our islands. We all may however, benefit by the wise saying of Diogenes, as related by Diogenes Laertius in his *Lives*. "And to those who were alarmed at dreams he said, that they did not regard what they do while they are awake, but make a great fuss about what they fancy they see while they are asleep."

CHAPTER XXIV.

THE LAW OF THOUGHT.

It may be asked here by the intelligent reader if there are any laws which govern thought. By the word *laws*, and *govern*, are meant simply that there are certain ways in which thought must act, of which the word *law* or *laws* is only the name. The Duke of Argyle in his *Reign of Law*, Mr. Herbert Spencer in his *Sociology*, and Professor Huxley in his *Controverted Questions*, have all given us an exact definition of the word *law*. One quotation from the last-named book will suffice. "The tenacity of the wonderful fallacy that the laws of nature are agents, instead of being, as they really are, a mere record of experience upon which we base our interpretations of that which does happen, and our anticipation of that which will happen, is an interesting psychological fact; and would be unintelligible if the tendency of the human mind towards realism were less strong" (pp. 253, 254).

In reply, it may be said that four so-called fundamental laws of thought are given, of which some are of greater age than others. Great differences of opinion have existed concerning them, some philosophers maintaining their existence, others the contrary. Perhaps nowhere are they more explicitly stated than by Sir W. Hamilton in his *Logic* (p. 57), and as they will be briefly considered, I cannot do

better than transcribe them word for word as given by him.

“The fundamental laws of thought or the conditions of the thinkable as commonly received are four:—(1) The Law of Identity, (2) The Law of Contradiction, (3) The Law of Exclusion, or Excluded Middle, and (4) The Law of Reason and Consequent, or of Sufficient Reason.”

“(1) The principle of Identity expresses the relation of the total sameness in which a concept stands to all, and the relation of partial sameness in which it stands to each of its constituent characters. In other words, it declares the impossibility of thinking the concept and its characters reciprocally unlike. It is expressed in the formula A is A , or A equals A ; and by A is denoted every logical thing, every product of our thinking faculty, concept, judgment, reasoning, etc.”

“(2) When an object is determined by the affirmation of a certain character, this object cannot be thought to be the same when such character is denied of it. The impossibility of this is enounced in what is called the principle of contradiction. Assertions concerning a thing are mutually contradictory, when the one asserts that the thing possesses the character which the other asserts that it does not. The law is logically expressed in the formula—what is contradictory is unthinkable. A equals not A equals O .”

“(3) The principle of Excluded Third or Middle—viz., between two contradictions, enounces that condition of thought which compels us, of two repugnant notions which cannot both coëxist, to think either the one or the other as existing. Hence

arises the general axiom—of contradictory attributions we can only affirm one of a thing; and if one be explicitly affirmed, the other is implicitly denied. A either is, or is not. A either is or is not B.”

“(4) The thinking of an object as actually characterized by positive or negative attributes, is not left to the caprice of understanding—the faculty of thought; but that faculty must be necessitated to this, or that determinate act of thinking, by a knowledge of something different from and independent of the process of thinking itself. This condition of our understanding is expressed by the law, as it is called of Sufficient Reason; but it is more properly denominated the law of Reason and Consequent. That knowledge by which the mind is necessitated to affirm or posit something else, is called the logical reason, ground or antecedent; that something else which the mind is necessitated to affirm or posit is called the logical consequent; and the relation between the reason and consequent is called the logical connection or consequence. This law is expressed in the formula—infer nothing without a ground or reason.”

Now, when one reads Sir W. Hamilton at a college where his works are text-books, and listens to the explanation of his writings as given by the professor, this may be one's first introduction to the subject. The idea of questioning anything taught may not then enter the student's head. But, if fond of the subject, when he has pursued it further, he finds that most diverse notions have been held by most philosophers upon nearly every question in the domain of metaphysics; and that the author of his text-book simply has his place as one of the many

disputants. Like others, he has his opinions and advances them, but like others he is not infallible. The student then naturally inclines to the view that to him seems nearest to the truth, and this he accepts and holds until he may find reason to change his opinion.

Above, under the heading of the judgment, it was observed that truth is the agreement of the cognition in thought with the reality in experience, and that error was the disagreement of the two. The more one thinks of this, the more one sees that it must be true, otherwise our thoughts would not only be erroneous, but our actions would be mistakes. Suppose one said, "All Englishmen are black," how would another attempt to prove they were white? Would he undertake to argue it, to prove they must be white, because they were descended, as some like to affirm, from the ten lost tribes of Israel; or because they are certainly descended from white Saxons, Danes, Normans and others? By no means. He would take the first Englishman he met, and say, "Look at this man. He is an Englishman. Is he black?" In other words, he would prove the truth by showing in the simplest manner possible the agreement of the cognition with the reality. Sir W. Hamilton states this in speaking of the first three laws (*Logic*, p. 70), though unfortunately he does what so many have done, that is, he makes the possible in experience depend upon the possible in thought. He says, "Whatever violates the laws, whether of Identity, of Contradiction, or of Excluded Middle, we feel to be absolutely impossible, not only in thought, but in existence. Thus we cannot attribute, even to Omnipotence, the power of making a

thing different from itself, of making a thing at once to be and not to be, of making a thing neither to be or not to be. These three laws thus determine to us the sphere of possibility and of impossibility; and this not merely in thought, but in reality, not only logically, but metaphysically."

Now this being so, we see at once that the first three so-called fundamental laws of thought are in reality. three fundamental laws of matter. As we have tried to demonstrate above, that the existence of matter is the only origin of thought, and secondly, that thought to be true must agree with the reality in experience; it follows that we are compelled to think as these three laws affirm, because they are laws of matter.

From this then, the following general law of thought may be stated, as the only one law of thought inclusive of the four given, or of any others that can be given; *what is possible in experience is possible in thought; and what is not possible in experience is not possible in thought.*

In giving this law it is to be noted that the word *experience* is used in its broadest sense. It embraces the whole of human experience in past and present times, and also what it will be in the future. As all our knowledge is derived from experience, it includes that also; and whatever it may be in the future, thus embracing all imagination and so-named philosophical knowledge. It will be noted too, that it propounds the truth that it is the possible in experience which makes the possible in thought; rather than—as so many have taught—that it is the possible in thought which makes the possible in experience. In other words, it is from experience that thought gets its limits, not experience from thought.

Take the first law, that of Identity. Expressed shortly, it states that the whole is itself, or the sum of its parts. This in matter is an axiom, evident by intuition to the youngest student of geometry. In thought it is compelled to be the same of a concept, not by any law of our minds *à priori*, but because it is so in matter. We can see that this is so by the fact that if anyone could show us an instance in matter where the whole is not the sum of its parts, the mind could at once think it. The uneducated man can just as easily think that the angles at the base of an isosceles triangle are not equal to one another, as that they are equal. He knows nothing about it; but the educated man knows they are equal, and cannot think them unequal. The laws of matter are, as we know them on the earth, but who is to say we shall never know another world, where they may be quite different? For example, the doctrine of the Holy Trinity is taught us in the creed as a matter of belief. We know nothing like it in this world, but who can be sure that we shall never know it by means of our senses in the next? The great majority of mankind in Christendom believe that we will.

Again, take our own experience. How many things have we not seen happen, which philosophers dogmatically affirmed could never happen, because they were unthinkable? Look at the Röntgen ray. Forty years ago, if one had said, "Light can go through opaque solids," he would have been flouted as a madman. It was said to be impossible because unthinkable. But just as soon as it was demonstrated to be possible, it became thinkable, and had to be, because possible in matter. So, in turn with

the speed of railway engines, steamships, the telegraph, telephone, electric light, phonograph, telephotography, the Marconi system of telegraph, etc.; all were unknown at one time, and if in any case a present result was spoken of, declared to be impossible and unthinkable, till they became realities, when they very easily became thinkable. The consequence is that men do not now assert as dogmatically as before what is not thinkable, for they have learnt not to place bounds to the possible in matter.

It is just the same if we take the second law, that of contradiction. Expressed shortly, it states that the same thing *cannot* be and be, at the same time. Why is this unthinkable? Not because our minds lack the power, but because we do not find it in experience. It is then, simply a law of matter as we know it, just as it is a law of matter that a man's body cannot be in two places at the same time. This is no more thinkable (possible in thought) than a violation of the law of contradiction, and for the same reason. Let some one, however, show us an instance of it in matter, and it will be just as possible in thought and as common, as it is thinkable to us that a message can be sent round the world in a space of time that would have been declared by Aristotle to be unthinkable.

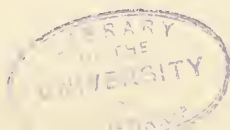
It is exactly the same with the third law of excluded Middle. It is a law of matter, and because not possible in experience is not possible in thought. A book either is or is not. If it is (exists), the contradictory that it is not is false. Of two contradictions one must be false.

It is then I hope, made clear that our one general law of thought, what is possible in experience is pos-

sible in thought, includes these three so-called laws of thought, but really laws of matter. But why stop at these three? If it is a fundamental law that the whole is itself, it is equally a fundamental law that the whole is greater than its part. This is true in experience and in thought. It answers then all the requirements of a fundamental law of thought, for it is not possible for us to think of a part of a whole being equal to the whole; nor as in the case of the other three, can we see any way how in this world, with its present laws, it could be made so.

Again, take the axiom, Things which are equal to the same thing are equal to one another. This statement is true in experience and in thought. We are compelled to think it true. No amount of reasoning could ever convince us that things equal to the same thing are not equal to one another. It is unthinkable. Why then not make it also a law of thought and have a special law for each case as it arises?

Concerning the fourth law of reason and consequent, we find it exists in matter also, where it is commonly called the law of cause and effect. It plainly stands on a different footing to the other three. They affirm that certain things must be thought, and we have seen that the reason is, because they thus agree with the reality. This fourth law however, tells us how thought works from reason to consequent, and that we are not to infer anything without a reason. Sir W. Hamilton says (*Logic*, p. 75), "The law enjoins—Think nothing without a reason why we must think it, that is, think nothing except as contained in, as evolved out of something else which we already know. Now



this reason—this something else—in obedience to this very law, must as itself known, be itself a consequent of some other antecedent; and this antecedent be again the consequent of some anterior or higher reason; and so on *ad infinitum*.”

Now in obedience to this advice, in thinking upon the origin of humanity, if we take the concept Adam as a consequent, we at once think of the “dust of the ground” as the reason. Next taking “dust of ground” as a consequent, we at once think of the Deity as a reason. Again, taking the Deity as a consequent we find ourselves left with no reason, and have to come to a dead stop. Where then, does the “so on *ad infinitum* come in?” We are told that every reason must be also a consequent, that it is a fundamental law of thought, we must think so, are compelled to think, that any supposition of a consequent without a reason is unthinkable; and yet the very first attempt we make we are landed in a reason, the Deity, that cannot be a consequent.

Now, we have no difficulty in thinking this. “Intellectual progress is by no one trait so adequately characterized, as by the development of the idea of causation; since development of this idea involves development of so many other ideas.” (Principles of Ethics, p. 47, Spencer.) We do not find it is unthinkable to say the Deity always was—we should, perhaps, find it more unthinkable to try and think of something as having created Him—but to say this is to contradict the law of reason and consequent. But of the two contradictories one must be wrong, that is, if the Deity always was, the law of reason and consequent cannot be a necessary fundamental law of thought. If however, the law of reason and

consequent is a necessary fundamental law of thought, then (be it said with reverence) the Deity must have had a creator. Of these two I prefer to accept the conclusion that the law of reason and consequent is not a necessary fundamental law of thought. The argument would, of course, come to exactly the same thing, if for the word Deity we substituted the words Unknown Power, as Mr. Herbert Spencer does. He says, "We are obliged to regard every phenomenon as a manifestation of some power by which we are acted upon. Though omnipresence is unthinkable, yet as experience discloses no bounds to the diffusion of phenomena, we are unable to think of limits to the presence of this power; while the criticisms of science teach us that the power is incomprehensible. And this consciousness of an incomprehensible power, called omnipresent from inability to assign its limits, is just that consciousness on which religion dwells." (First Principle, p. 99.)

From "dust of the ground" as a consequent we go back to Unknown Power as a reason. Taking Unknown Power as a consequent, what shall we take as a reason? It would be exactly the same if we affirmed that matter always was, that is, had no Creator.

Again, "The logical significance of the law of Reason and Consequent lies in this:—That in virtue of it thought is constituted into a series of acts all indissolubly connected; each necessarily inferring the other." (Sir W. Hamilton's *Logic*, p. 61.)

This might be true if it were possible to lie and dream for ever in an ideal condition, but we certainly do not find that it is allowed to be true in real life.

A man is sitting in his study in meditation, following a series of thoughts, all "indissolubly connected," when a material interruption comes by the entrance of some one, who breaks off short the former series of connected thoughts, and introduces another, which goes on till it is broken either subjectively or objectively.

Again, take a man of business who has to receive every morning twenty or thirty persons, each upon a different matter. His thoughts for that morning are certainly not "indissolubly connected," but very much the reverse. He is fatigued when the morning is over by the constant changes to different subjects, as Harriet Martineau remarked in her *Autobiography*. "The dissipation of mind caused by interruption is a worse fatigue than that of continuous attention." (Vol. I., p. 434.) There was not much ideality either about the reasons and consequents of his thoughts, as all the breaks in the chain were caused by entities very distinctly material.

It seems to me then, that the conclusion we may come to is that reason and consequent is not so much a necessary fundamental law of thought, as it is a statement of how our thought acts naturally if not interrupted; that we do not expect to find a consequent in the mind without a reason, any more than in matter we expect to find an effect without a cause; but that when we do find a reason (the Deity), which is not a consequent, we have no difficulty, in spite of this law in regarding it as thinkable, that is, having an existence.

That we infer syllogistically, has been stated above to be the natural action of the mind in men and in sentient inferior animals; but though some

have called it so, it is not usually considered to be a law of thought, but is regarded as a statement of how the mind works. Of the two, however, the law of reason and consequent, and the syllogistic method of reasoning, it appears to me that the latter has as good a claim to the name of a necessary fundamental law as the former. We do not find at any rate that it lands us in a contradiction to itself, as we have seen the former does.

If then, to conclude our observations upon this part of the subject, we are disposed to take as a general necessary law of thought that given above, that what is possible in experience is possible in thought, we shall have a law that covers every case that can arise. There can be no doubt further that the tendency of modern philosophy is in the direction of common sense. Men have begun to see the futility, nay more, the absurdity of the long discussions of the past upon such questions, for example, as the existence of matter. The consequence is that it is not so common now to read what conflicts with what all men and animals believe by virtue of their own existence.

PART II.

CHAPTER I.

THE FEELINGS.

WE have now completed our short and cursory examination into the origin of thought, and hope that the brevity with which it has been treated has been such as not to alarm first examiners into this subject, as is too often the case when they see it in ponderous works, or the same in several volumes. It is, unfortunately too true that often upon the *omne ignotum* principle, the apparent size of a subject frightens some would-be students. Either they have not the time or the inclination to take up a study which seems so extensive. Many a young man, for example, has been enticed into the study of logic by a sight of Aldrich, who, if he had been shown at first Sir W. Hamilton or John Stuart Mill, would have acted like the youngster anxious to enter Eton, but of whom it was gravely recorded, "*Sed Euclide viso, horruit et evasit.*"

WE have touched upon matter, the senses and mind; how the senses make the latter cognizant of the former; upon consciousness, and the powers of the mind sufficiently distinctive to make them merit separate observation; and the subject has not been a long one. Neither is it a "dry" one, after being entered upon and understood as, perhaps some

readers of it for the first time could testify. It now remains for us to pass on to consider other phenomena of mind, and first those which come under the head of feelings, emotions and passions.

To make this part of the subject clear, it may be well in the first place to explain what is meant by the words feelings, emotions and passions.

The word feeling in this connection is used apart from the sense of touch; but it is easy to see that when so employed its use is derived figuratively from that sense. For the word can be used either of the body or the mind, as the sensation of what is called feeling may spring from either source. In a hot room we experience a feeling of warmth. The heat of the room actually penetrates our bodies, just as it does all other substances in the room. So we can experience a feeling of cold, of uneasiness, of drowsiness, of anger, or sorrow, etc. Now, a feeling of pain, as a pinch of the flesh, or of pleasure from a bath, may be induced by actual contact of the body with something else. Hence the word feeling is used not only for these, but for all sensations of the mind that produce feelings, though there may be no contact of the body with anything else; like love or hatred, pity or obduracy, sorrow or gladness, anger or mildness.

The principal point to notice, however, is that the word feeling is used for the lowest, or first state of the sensation experienced. When that experience is bodily, and is strong or intense, we continue to use the word feeling, but we intensify it by adjectives or a stronger word, as a feeling of heat, intense heat; or a feeling of being burnt or scalded. If one on a hot day plunge one's hand into ice cold water, there

is a feeling of intense cold, or freezing cold. But when the word feeling is used with reference to the mind, we can use it intensified by adjectives; or we can drop it, and make use of words that express intensified feeling, and are applied to the mind only, of feelings, emotions, and passions.

On account then, of the word feeling being used to express the lowest or first sensation of what has produced it, it is plain that the word feelings may be taken in a very general sense with reference to our sensations. Desire, pleasure, pain, hope, love, anger, hatred, fear, etc., are all feelings, some of which we experience at times, while others are always with us.

Generally speaking, the feelings in action are independent of the will. Aristotle notices this in his *Ethics*. He says (Chapter V.), "Further we feel anger or fear without deliberate choice." By this is meant that the will is passive when the feeling is experienced, as ordinarily something not under our control causes the feeling, as rheumatism, pain; the death of a friend, sorrow; the meeting of a dear friend, pleasure; entering a grand old cathedral, reverence, etc. The will, however, can be used to cause a feeling, as for example, determining to think of something agreeable that has happened, and thoughts of which give us pleasure.

Emotion is a word that is applied only to the mind, and is feeling intensified. Generally it is feeling intensified sufficiently to be shown in action. If we see a case of oppression which we are powerless to relieve, it may awaken in us a feeling of sorrow, or pity for the wronged one; but if we lose a dear friend by death, our feeling of sorrow is intensified

into the emotion of grief, and tears are shed. Sorrow then, has become more than a feeling; it is now an emotion. Again, we may experience a feeling of pleasure, which may be intensified into an emotion causing us to dance; the emotion of pleasure being expressed by the words joy or delight. So a feeling of pain may be so intensified into emotion, as to be shown by bodily actions—contorting the body.

From this it will appear that all our feelings may be intensified into emotions. An emotion may then, be said to be the second stage of feeling. If feeling is the positive in the comparison, then emotion is the comparative. Naturally, we would expect to find a superlative. This is supplied to us by the word passion.

The word passion, like emotion, is confined to the mind, and is emotion intensified; from which, and from feeling, it differs in one great respect, with reference to the will. In emotion, as in feeling, the will may be passive; but its potentiality, its liberty of action is preserved. It may or may not be called into action to cause an emotion, as most causes of emotions, like feelings, are extraneous to ourselves. But in passion the will has generally lost its power to act, that is, it is conquered by the passion, which uses it for its own purposes. This is why anger was called a short madness by the ancients, and why they represented love (meaning of course, strong, passionate love) as blind. The man who is passionately angry has his mind so carried away, that though intensely conscious, he does not realise what he is doing until the possession by anger has passed away. When his calmer moments

return, and he realises what he did, he may consider himself a fool. "That the cultivation of the person depends on rectifying the mind may be thus illustrated. If a man be under the influence of passion he will be incorrect in his conduct. He will be the same if he is under the influence of terror, or under the influence of fond regard, or under that of grief and distress" (Chinese Classics. The Great Learning). The man who passionately hates is in constant danger of doing an irreparable injury to the object of his hatred; for his will is absolutely subjugated by his desire to injure. The emotion of grief may be intensified into a passion, resulting sometimes in absolute retirement, in melancholia, or in suicide.

From the above then, it appears that the feelings, emotions and passions, need not be divided into separate classes as so many have done. Rather, it is better to take the one general class called feelings, which includes emotions and passions; and to consider the difference between them as one of degree, or of intensity. The same power of the mind permitting the feeling of vexation or annoyance to arise is there, but working more strongly, for the same feeling, when it has risen to the emotion of anger; and still more strongly when it has risen to passion (rage or fury); just as it is the same hand that may in succession lift weights of two pounds, four pounds and eight pounds. A different hand is not required for each, so a different part of the brain is not required for different degrees of the same feeling.

In writing then of the feelings the reader will please observe that where the word feeling, emotion, or passion, is used of the same sensation, it is used

to express the degree or strength of the feeling which is being considered. There are cases, of course, where a different word is employed to express a feeling, or an emotion: as pleasure, a feeling; joy or delight, an emotion; sorrow, a feeling; grief, an emotion: love, a feeling, or an emotion; worship or adoration, a passion, etc.; and naturally, these will be employed in their own sense.

CHAPTER II.

DESIRE.

OF all the feelings we begin with desire first, because it is the first, not only in point of time, but of importance. It lies as the foundation stone—*fons et origo*—of all the actions of our every-day life, and has been implanted in us for our preservation.

When the infant enters the world, the intense desire of the lungs makes it breathe and continue to do so; while the desire for food makes it try to get it, and shriek till its attempt is successful. And because food is just as necessary as air to sustain life, the child's first unconscious efforts to get it are instinctive, while the muscles of the lips act, as we have already seen, automatically. Desire makes it unconsciously to itself sleep, or want its position changed; and when awake makes it later on want to be carried, or amused, or to try to creep or walk, to possess toys, or to be in the arms of its nurse or mother. In short, what is there in its young life that is not influenced by desire, and so on as we shall see all through its life? When will it conquer desire, as in the case of a man disposed to shun evil, what is it but the desire of a better life, or the desire of a more lasting happiness, which the man's instructors or his own sense tells him can be got only in that way? In fact, as we proceed,

we shall find that there are no feelings which are not connected with desire, either directly or indirectly; and that while some may be classed under the head of pleasure, and others under the head of pain, all rest upon this great general foundation stone.

One would expect then, to find that it had been given more prominence than is assigned to it by most writers. That it has not is probably due to the fact that it has escaped them as the great mover of all that influences our lives. Locke, for example, places it among the passions, and gives it the following paragraph (Vol. I., chapter xx., 6):—

“Desire.—The uneasiness a man finds in himself upon the absence of anything whose present enjoyment carries the idea of delight with it, is that we call desire, which is greater or less as that uneasiness is more or less vehement. Where, by the bye, it may, perhaps, be of some use to remark that the chief, if not only spur to human industry and action is uneasiness. For whatsoever good is proposed, if its absence carries no displeasure or pain with it, if a man be easy and content without it, there is no desire of it, nor endeavour after it; there is no more but a bare villeity, the term used to signify the lowest degree of desire, and that which is next to none at all, when there is so little uneasiness in the absence of anything, that it carries a man no further than some faint wishes for it, without any more effectual or vigorous use of the means to attain it. Desire also is stopped or abated by the opinion of the impossibility or unattainableness of the good proposed, as far as the uneasiness is cured or allayed by that consideration. This might carry our thoughts further were it seasonable in this place.”

On page 383, Vol. I., 39, he however, goes nearly as far as we want when he says, "There is, I think, scarce any of the passions to be found without desire joined with it. I am sure wherever there is uneasiness there is desire; for we constantly desire happiness."

The ancient Stoics gave desire a very bad character. "Again, desire is an irrational appetite, to which head the following feelings are referable:—Want, hatred, contentiousness, anger, love, enmity, rage. Want is a desire arising from our not having something or other, and is, as it were, separated from the thing, but is still stretching and attracted towards it in vain. And hatred is a desire that it should be ill with some one, accompanied with a certain continual increase and extension. Contentiousness is a certain desire accompanied with deliberate choice. Anger is a desire of revenge on a person who appears to have injured one in an unbecoming way. Love is a desire not conversant about a virtuous object, for it is an attempt to conciliate affection, because of some beauty which is seen," etc.*

Sir W. Hamilton would seem to make desire and will almost synonymous. He says (*Metaphysics*, p. 572), "The feelings of pleasure and pain, and the conations" (desire and will) "are thus, though so frequently confounded by psychologists, easily distinguished. It is, for example, altogether different to feel hunger and thirst, as states of pain, and to desire or will their appeasement."

Now, if he had said "will their appeasement," this would have been right enough; and it is this

* Dio. Laert. Zeno.

employment of the word "will," that would be apt to make the reader almost unconsciously pass over the word "desire," and accept the statement.

For what is hunger? Some might define it pain caused by the absence of food, but a better definition is the desire of food, because hunger is pain only when extreme. Ordinarily before regular meals it is only uneasiness, and with most elderly people not even that. But the desire for food is present all the same. Breathing is the desire for air. If we hold our breath it causes first uneasiness, and next pain, because the desire for oxygen is not satisfied. But as in the case of the stomach causing the desire for food, because the lungs and state of the blood cause the desire for oxygen; are we to say that this desire is not desire in the same sense in which the desire of money, or desire of power, is desire? Certainly not. The difference is in the cause, that is, one is bodily, and the other mental; one is from the lungs and the other from the brain, but the effect is the same. The desire for food springs from a craving stomach, the desire for money or companionship from the craving mind; in short, all our desires spring from ourselves. If we were spirits we might have no desires, but as human beings we will always have them; and they are desires whether of the mind, or body, or both; and as has been observed, lie as springs to impel to action.

With reference to desire and will being taken together as if they were nearly one, or could act as it were, only together, the statement seems to me to be very wide of the mark. Desire is one thing, the will another; and though often acting together,

they may, as we have already seen, have to act at times directly contrary to each other.

In inferior animals, in their natural state, the will as a rule never opposes desire. If a lion sees a deer and he wants food, his desire at once influences his will, and he acts by springing upon the quarry. If a stag is alone and wants companionship, his desire influences his will, and he calls for it. When he desires to rest he lies down, when he desires to get up and move about, he does so.

But human beings are rational and accountable, and must be morally trained. One of the first lessons to be learnt in life therefore, is that the will must conquer desire, or all will be lost. The child would steal its mother's sugar which it desires, but it has been taught not to do it, and so resolutely turns away. The pet dog has been taught not to touch the lump of sugar, "on trust," that is, for his will to conquer desire; and so he waits for the words, "Paid for." It is worthy of remark in passing that as if he had—of course, unconsciously—learnt the danger of the eyes in causing desire, while he is waiting for the words, "Paid for," he does not look at the sugar. The bank clerk who has thousands of pounds passing through his hands every year, may not have a salary equal to the exigencies of his large family. He desires money very strongly, but his desire is subject to his will; he is honest, and therefore safe. Let desire however, in a weak moment conquer will, and his moral character is gone, and his position lost.

Instances however, need not be multiplied—they will occur to the reader—for enough has been said to show that all success in life is due to the great

truth stated, that will must conquer desire; that is, that it must be used to make us desire the better, and crush the worse. Every one of us, man or woman, had to do it in some form or other. With some it was a struggle that went on for years, and had to be fought to its issue alone, because none could help but God. Each one knows well what their own was, and knows also that what caused them such a bitter fight, may have caused their neighbour scarcely a troubled thought; but all the same his neighbour had his, and perhaps, just as hard a battle.

We see then the importance of desire, and its claim to stand as the great origin of not only all our feelings, but also of what happens in our lives.

Taking it then as the fountain of action, let us pass on to consider some feelings that necessarily spring out of it, beginning with its two sub-divisions of pleasure and pain, or desire direct and indirect.

CHAPTER III.

PLEASURE AND PAIN.

IN considering pleasure and pain, we note that the first is what every one wants in some form or other; the second is what everyone tries to avoid, except in religion. "But it is very important to remark that there is in mankind another, and a much more strange kind of tendency—a craving for self-torture—for self-denial in the sense of sacrificing what is agreeable, and submitting to self-inflicted suffering, simply because it is painful, on the supposition that pain, and especially gratuitous endurance of it, is in itself acceptable to God."*

We all know by our own experience and that of others what pleasure and pain are, though many pass their lives without giving either much thought in the way of analysis. Men who have written upon the mind have mentioned them, some briefly, and others at length. Sir W. Hamilton (*Meta*, p. 577) defines pleasure thus: "Pleasure is the result of certain harmonious relations—of certain agreements." Again (p. 578) he says, "Positive or absolute pleasure, on the contrary, is all that pleasure, which we feel above a state of indifference, and which is, therefore, prized as a good in itself, and not simply as the removal of an evil." Some

* *Essays on Difficulties in the Writings of St. Paul*, pp. 44, 45.—Whately.

others have not attempted a definition of it, contenting themselves by merely describing it.

Now, it appears to me that giving desire its proper position, with reference to the feelings, will not only help us to understand them, but will also help us to understand what pleasure is. Pleasure then, may be defined as the feeling induced by the gratification, or expected gratification of desire.

We can understand this if we notice in the first place, that desire lies at the foundation of pleasure. As remarked above pleasure is what every one wants (desires) in some form or other. But it would be useless for any one to attempt to desire pleasure in the abstract only. What could come of it? Suppose one were to say, "I desire and continue to desire pleasure," what is his condition? If he remains inactive like a gazing fakir, rather worse than it was before. You see him next day and ask if he still desires pleasure. He replies that he does, but when asked if he has got it, is compelled to say no; and is rather more uneasy than he was yesterday, because he wants it more strongly and seems further away from it. You then proceed to explain to him that pleasure, using the word in the abstract, is simply a general term taken to include a large number of particulars in the concrete. For that is what it is. We can experience no pleasure by thinking of pleasure, unless we think of it as joined to some sensation, mental or bodily. So we have the pleasure of benevolence, of love, of hope, of faith, the pleasure of agreeable memories, of reflection, of reading, and of conversation, etc. For the body we have the pleasure of eating and drinking, of riding, boating, fishing, swimming, etc., in short, all the

agreeable pursuits in life it would need a Walt Whitman to enumerate.

But the point to be observed is, that pleasure must be the pleasure of something, or it is nothing at all. Now if we desire anything that is agreeable, we desire it for the good or the pleasure we shall get out of it. If we get what we want then, as love, agreeable memories, money, food, a ride, or swim; because the desire is gratified we get pleasure. Our definition of pleasure, then, is justified, that it is the feeling induced by the gratification, or expected gratification of desire.

For the purpose of self-preservation and that of the race, a wise Providence has made the nerves of our bodies external and internal, susceptible of agreeable and disagreeable perceptions giving corresponding sensations. Eating is necessary to sustain life, and so eating has been made in us a pleasurable experience. Suppose for a moment that it was the contrary. What would become of us? Suppose that eating and drinking were necessary to sustain life, and that the operation were accompanied with intense pain, our position would be a horrible one. No one would care to carry the burden of life longer than he possibly could, like those persons intensely to be pitied, who die of cancer in the stomach or throat. Indeed the primary difficulty of such a state, were it possible, would begin with infants, who would have to be fed by force.

Exactly the same is it with nearly everything else necessary to our continued existence. Indeed we find in some cases, that the more necessary a thing is, the more pleasurable has it been made. Observe, too, how nicely balanced in this respect

things are to our individual age. The young, for example, need food for two purposes; to repair waste, and to supply materials for growth. We find then, that in childhood and youth, the growing period, the love of food and desire for it are intensely strong. The healthy boy or girl wants to be eating all the time. The boy of 15 or 16 will eat easily twice as much as his father. But when we come to adults, where food is needed for comparatively one object, to repair waste, we find the desire for it just in proportion to the amount of mental or bodily waste, the labourer eating more, *ceteris paribus*, than the professional man. Whereas it is scarcely possible for the boy to over-eat, if the man or woman persistently do so, they are punished by indigestion, or obesity.

So it is with exercise. The young need it for growth, and for working off exuberance of animal spirits; and we find that it is easy and pleasant for them to take it. The child instinctively skips and dances when happy. The young man is happy when engaged in some athletic exercise, as riding, fishing, sculling, cricket, rackets, etc., while for quieter indoor games he prefers billiards to whist.

But how is it with men and women? As years pass on much exercise becomes less necessary, indeed, may be dangerous. We consequently find that the power to take it is not so strong as in earlier years, for the strength of the legs is less in proportion to the weight of the man, than the strength of the legs of the child to the weight of its body. "For in consequence of the law that the strains which animals have to overcome increase as the cubes of

the dimensions, while the powers of overcoming them increase only as the squares; the movements of an adult animal cost very much more in muscular effort than to those of a young animal; the result being that the sheep and the cow exercise their muscles more vigorously in their quiet movements than the lamb and the calf in their livelier movements."*

By a merciful law of nature too, after we have gone through a thing like yachting, or swimming, the love for it is not usually so strong as in earlier years; so that it is not as great a deprivation to the man of middle life, or the old, not to do these things, as it would be to the young man.

Again, companionship is necessary for our well being, so we find man has been created a social animal, gregarious in his instincts. The society of others is consequently pleasant. We enjoy their conversation, and delight in watching the faces, movements, and dress of people. We enjoy hearing musical performances, or seeing skilful deeds, or works of art, like painting or magnificent bridges or buildings.

On the other hand imagine that man was not a social being; that as soon as he conveniently could he got as far from his fellows as possible; what would have become of the progress of the race in inventions, and in softness of manners, for example? Nearly all the great inventions we have, like steam, telegraphy, and photography, are for social purposes, and would never have been known were humanity not gregarious. So with the *emollit mores* part of it. This depends, as all know, upon social life; as

* Biology, Vol. II., Sect. 391.—H. Spenceér.

the more families are isolated, the more savage have their manners a tendency to become.

Now, as our bodies can experience pleasurable sensations by being agreeably treated, so the mind can enjoy pleasure by thinking of these things in meditation. We like (find a pleasure in) thinking of friend, or lover, of success in sports, or work, or of the objects of faith, etc. In short, what is pleasant in action is pleasant in thought; and here again, as thought is the spring of action, we see the wonderful wisdom of our great Designer, since we like to do things that it is pleasant to think of. Pleasant thoughts thus encourage pleasant actions, and the great difference between good actions that are pleasant, and evil actions, that to the person of evil mind are pleasant, is that when the good action is done, the pleasure of it remains; while when the evil action is done, the residuum is certain to be pain.

It need scarcely be mentioned, as it must be evident to every thoughtful reader, that just according to what we enjoy the pleasure of, is pleasure a feeling, an emotion, or a passion. Reading, for example, or eating, or thinking of an absent friend, may give a feeling of pleasure. Returning home to one's native country, and meeting dear friends after a long or dangerous absence, will give an emotion of pleasure; while love may be pleasure as a passion, when the man or woman is a lover of intense feeling.

Pleasure at anything in the mind re-acts upon the body, and its manifestation is familiar to all. This has plainly been arranged so for men and most animals, in order that joy may be infectious, and others made happier for the time being. Hence a large part of the pleasure of social or gregarious

life; for as with the majority life is a burden, all ought at times to be able to throw off its cares for enjoyment. This is better understood in these days than it was formerly. Men are realizing in spite of the false or exaggerated teaching of the past, that the Creator, who made animated inferior nature so susceptible of pleasure, and so little susceptible to lasting or continued grief, must have intended the nobler part of creation to be happy also. They have begun to notice that the heaven described by St. John, where he represents the unknown by the highest terms of the known, is not described as an abode of wretchedness and misery, and consequently, that pleasure must be a good.

The natural expression of ordinary pleasure is laughter, and man is the only being that can laugh. It is, however, associated mostly with that pleasure commonly called the ludicrous, or laughter provoking. This, on account of our possession of language, may take many forms; of which wit in speech is among the highest. The power of quickly seeing the ludicrous is one that is very different in different persons—slow or fast personal equation—and consequently, some that are bright, happy natures under any circumstances, will enjoy life more than others. It can be cultivated in children, and naturally the children of the well educated, if the parents are cheerful and witty, and see much of them, have an enormous advantage over those not so happily circumstanced. Wise parents will take in “Punch,” not only for themselves, but for their children, to whom it is a liberal education in the most refined wit of any nation. Wit and merriment like good wine, make glad the heart of man;

and if the injunction of the great master wit is followed,

“ Nor set down aught in malice,”

no sting need ever be left behind.

When persons are happy for other reasons, it must show itself in heightened colour, sparkling eyes, etc. One of the most ordinary ways is by motion, hence dancing. Everyone has noticed that the effect of bright, lively music is to make children dance and skip; just as the bright sun on a fresh spring morning makes lambs frisk, colts gallop, and dogs play for very joy of living. And as no adult can sit perfectly still after hearing an item of very joyful news for himself; so when youth and beauty meet, the most natural expression of their pleasure in the bright room, the pretty dresses, the lovely music, and the mingling of the sexes is,

“ To chase the glowing hours with flying feet.”

Now, midway between pleasure and pain lies a state of mind when we are not affected by either positive pleasure or positive pain. This may be defined as the lowest feeling of pleasure, when for example, we are doing nothing, but simply resting, or idly gazing out of a window, or occasionally making an observation to a friend in the same room with us. But be it observed these periods are necessarily very short; as naturally we are always seeking something to amuse or interest us, so as to give us pleasure in a small degree. Rest when tired, for example, is pleasure; so is dozing when sleepy, as it requires an effort to keep awake; so is taking up a book, or light work for amusement, as knitting, sewing, or art needlework.

From this it will be seen, that if we examine each

day of our lives we shall find that it is made up ordinarily of a certain amount of pleasures or agreeables, and a certain amount of pains or disagreeables. If we are living with others, the pleasures, for example, are meeting and eating meals, bright conversation, where each one has been, whom they have met, receiving pleasant letters, meeting agreeable acquaintances, etc. The pains will be such as little accidents, work not done, disagreeable things said to us by others, an appointment not kept by some one, getting wet when out, etc.

Generally the pleasures and pains balance, and we have an ordinary day. When the agreeables preponderate, we have the pleasure of a bright agreeable day; while when the pains preponderate we feel slightly depressed by a disagreeable day, and life seems dark. "The web of life is of tangled yarn, good and ill together. Our virtues would be proud if our faults whipped them not; and our crimes would despair if they were not cherished by our virtues." (*Much Ado about Nothing*, iv., 3.)

That during the day the agreeables and disagreeables should nearly balance, with a slight preponderance of the former, seems to be the condition best suited for life's ordinary work. For, then we have slight rises and falls of spirits, which counteract each other, and preserve the proper mean between a superabundance of brightness, which would eventually incline towards frivolity, and a superabundance of sadness, which would incline towards depression, and possibly melancholia. We can understand this better by thinking of some time when a member of the family died, and the house was plunged in grief for a week or longer. Towards

the end of the week some slight absurd thing happened, and the one who saw it was ashamed, because convulsed with irrepressible laughter. But this was only nature's action to restore the disturbed balance. On the other hand, it is well known that comic actors, wits, and others, who convulse audiences or friends with laughter for hours, are subject to violent reactions of depression.

So laughter, compulsorily repressed at the time, will be more violent when the restriction is removed than it would have been at the time. When any thing very ludicrous occurs during divine service, for example, as the proper conduct of it depends upon the clergy present, impressed by the solemnity of the occasion they will preserve their gravity, often without much difficulty; but after the service I have seen them helpless with laughter.

Pain is a general word used to define the suffering caused by injury. It is, of course, the opposite of pleasure, and like it, necessary to self-preservation. If life has to be preserved, it is necessary that the mind should be conscious of danger, and the body aware of injury. Accordingly, we find the latter covered with external nerves, which are highly susceptible of injury, and so close together that the point of the finest needle cannot touch the skin without injuring some of them. A slight touch is harmless, indifferent, or pleasant; but a blow bruises and causes pain. All this makes us shun danger to avoid pain, and so preserve our lives.

The nerves are so wonderfully and beautifully arranged also as to be able to warn, when necessary, from almost infinitesimal assailants. A minute cinder, or hair, lying on the face or hand, will not

attract the attention of the sense of touch ; but either on the cornea, or within the lid of the eye, may become so painful as to necessitate its instant removal. All injuries, then, external or internal, cause pain or suffering, and make us guard against them ; and thus, if we preserve life positively by food, we do so negatively by avoiding what will injure.

Injuries to ourselves give rise to mental sensations of pain and distress, in addition to the pain at the injured part. This mental pain will be great in proportion to the gravity of the injury or its effects, as, for example, making us helpless for a certain time. As all our thoughts, as we saw above, come from experience, all our conceptions of pain are derived from the injuries that can be inflicted upon ourselves or others, or inferior animals. It can thus happen that we may suffer special forms of pain, by seeing pain inflicted upon another, or upon helpless animals ; for, by having suffered ourselves, we know what they must feel.

Pain of mind, or suffering, by whatsoever it may be caused, is easily seen in the actions. Tears are nature's relief for suffering, but when it is very acute it gets beyond tears. It is then seen in the listless attitude, the sad countenance, the lack of interest in what goes on around, the impossibility of being roused to take an active part in life, etc. When these are long continued, they result in deeper depression, affecting the health, and leading to the insanity of melancholia, or an early grave. But enough of this as it is in a small way too much like that awful book, Burton's *Anatomy of Melancholy*, concerning which two things only may be said, the first of which is that it should never have been

written ; and the second, that being written, it should never be read by any but medical men, and by not all of them.

As pain, like pleasure, is a general word, it cannot be experienced unless associated with some particular sensation. This will appear later on, when we come to deal with the feelings, that are necessarily classed under it as a heading.

For the same reason it would be difficult, if not impossible, dealing with it in the abstract, to understand how it is indirectly connected with desire. If we take concrete examples however, this will be evident at once. The desire of food or drink causes first uneasiness, and then pain. The absence of the agreeable, which all desire, causes the pain of depression ; while all bodily pains, by whatever cause produced, as toothache, neuralgia, or sciatica, awaken the strongest desire to get rid of the special pain, rousing to every effort that can be made for the purpose. So grief is caused by the loss of some desired object. Restore the object, for example, a fortune ; that is, grant the desire, and the grief ceases. The pain of anger is caused by opposition to our desires ; envy by seeing another in possession of what we desire for ourselves, and so for all the others.

CHAPTER IV.

SELF-PRESERVATION.

WE all know what self-preservation means, and I presume most of us have heard the late Professor Blackie's definition of utilitarianism, "The greatest good of the greatest number. The greatest number, one."

Self-preservation is a pleasurable feeling, and springs from the desire of life, which has been implanted in us all for the preservation of the race. It is plainly instinctive in all inferior creatures, for the same reason; and few, I presume, will doubt that it is instinctive also in humanity. D. Laertius says of the Stoics (Lives, Zeno), "They say that the first inclination which an animal has is to protect itself, as Nature brings herself to take an interest in it from the beginning, as Chrysippus affirms in the first book of his treatise on Ends; where he says that the first and dearest object to every animal is its own existence, and its consciousness of that existence. For that it is not natural for any animal to be alienated from itself, or even to be brought into such a state as to be indifferent to itself, being neither alienated from nor interested in itself. It remains therefore, that we must assert that Nature has bound the animal to itself by the greatest unanimity and affection; for by that means it repels

all that is injurious, and attracts all that is akin to it and desirable." So St. Paul says, "No man ever yet hated his own flesh, but nourisheth and cherisheth it."

Accordingly, as we have seen, all animals have been created with nerves and other appliances to warr them of the possibility of pain or danger; and many of those whose environment places them in danger have been provided with means of safety, or of offence or defence. Inferior creatures seem to need no teaching either, to use their weapons of defence. The bull knows how far to lower his head for a charge, and the oryx the best position to assume to make his pointed horns most available. Everyone, too, has seen how the timid sheep know the value of formation, by presenting an unbroken circle of heads to a dog, the circle having the lambs in the centre. All this is for the preservation of their individual life and to continue the species.

In spite of it however, as all who have read geology know, there have been many species of land, or sea, or amphibious animals, which are now absolutely extinct. The species like "our little systems," had "their day and ceased to be." How many more further researches in geology will reveal to us in the future it is impossible to say. "With all this it may be safely assumed, that at the present moment we are not acquainted with a tithe of the fossils which will sooner or later be discovered."*

Possibly, some creatures still in existence, as the bison, elephant, lion, tiger, etc., may disappear, thrust out of the arena of life by their environment becoming too strong for them. As man takes up

* Controverted Questions p. 56, Huxley.

more and more of the world's surface for habitation, the inevitable law of the survival of the fittest must destroy them; as possibly some human races also may disappear, the inferior before the superior. This, however, is a contingency not to be interfered with by nature, and against which the natural powers of defence of the inferior creature are helpless. All the same, their powers were given them to preserve their lives, and so their species; and, as we saw, the desire of life will make them use them to their utmost extent, from the threatening posture of the earwig to the strength of the lion or elephant, who can play with a man in his power, like a cat with a mouse.

But further, self-preservation can be seen in the desire of food. This also is an instinctive desire like that of life. No preceptor is needed to teach the young of any animal to seek it, until, as in the case of the colt or calf, for example, the food supplied by the parent has to be changed to grass. Here the power of imitation comes in, for the young of all animals will do what they see their elders doing. The colt, then, which has long nibbled at grass, finds by the supply of its former food ceasing, and the impatience of its mother when it attempts to get it, that it must depend upon grass permanently for a supply.

The desire of food is one of the strongest desires we have, and it is aided by the craving of the bodily organs when deprived of it, a craving that can amount to intense pain. Accordingly, as we all know, the shipwrecked sailor long deprived of food, will if he have the strength, and if not restrained, spring upon it and tear at it like a wild beast. Indeed, like madmen, they have to be restrained lest they kill themselves

with surfeit. In the Wiertz Gallery of paintings at Antwerp, may be seen in the horrible picture of the mother cooking her own child, what human nature is capable of doing for food. This, however, may be taken to represent only those whose bodily desires are stronger than their will and love; as, for the credit of humanity, it is well known that during famines there have been hundreds of instances of unrecorded heroism, when parents have slowly starved themselves, in order that their children might live.

Now, in this desire of food for self-preservation, we have the first moving spring of daily toil, as Solomon tells us in the sixth chapter of Ecclesiastes, "All the labour of man is for his mouth, and yet the appetite is not filled." Men and their families must eat, and so "Man goeth forth to his labour until the evening." Whether stone-cutter or bar-rister, joiner or clergyman, farm labourer or banker, it is the same; the want of money to buy food makes men work that they may get it. And as competition is great, and becoming greater, men exert themselves more and more in the endeavour to hit upon some new thing that may be a success, and by giving them a competency place them above the necessity of work.

The consequence is, that in no age of the world has there been seen so many ingenious inventions, so many articles of luxury, in short, such a high standard in everything intellectual and material as exists now. In this struggle, as in that for life among inferior animals, we have in sociology, the law of the survival of the fittest in full and inexorable operation. Hundreds of thousands are able to swim or to float on this life's sea of struggle; but on the

other hand hundreds of thousands yearly go under. Where it is possible, humane men hold out a helping hand to a friend; but where it is not possible the law of self-preservation comes into operation, and the heart has to be hardened to see the friend go down, with a feeling of thankfulness that it is not one's self.

As the number of those in the world, who have a competency and yet work for the benefit of their fellows (the noblest of humanity be it observed in passing), in politics, religion, scientific research, medicine, etc., is comparatively small; the wisdom of Divine Providence in creating us so that food is compulsory is obvious. Had it been otherwise, we can easily imagine that humanity would never have advanced beyond the attainments of peaceful Pacific islanders. For ordinarily speaking, who would work day after day without inducement, when they could live without it, and have all their time for pleasure or amusement?

As in the desire of food, so is self-preservation one of the main springs of all our actions whether important or trivial. Not often on a wet night in London will a man be found who cannot afford a hansom willing to give up his seat in a 'bus "to oblige a lidy." All say to themselves, "Self-preservation is the first law of Nature," and "sit tight."

So, in accidents, this feeling will make some men fight like tigers to get out, for example, of a burning building, not caring who perishes so long as they are safe. Thus it can be seen that by fostering too much the feeling of self-preservation, an intense and hardening selfishness may be begotten. Therefore it is, that religion in its best form inculcates altruism, not only that it may materially benefit

others, but also, and what is more important, that it may elevate ourselves and them to a higher plane of life, where selfishness is unknown. And so, we are told, the teacher of the most perfect altruism the world has yet seen said, "It is better to give than to receive," and again, "Greater love hath no man than this, that a man lay down his life for his friends."

There can be no doubt that most occupations, which involve getting money directly from others, instead of by an annual salary; cultivate selfishness, and repress altruism. A man cannot regard his neighbour with much unselfish affection, who thinks and plans how he may transfer money from the pocket of every man who enters his office to his own, irrespective of consequences to the other. Proverbs, therefore, or sayings, have been invented to ease the conscience, like "Caveat emptor." Many such men are often not aware that there are others, like philanthropists or clergymen, who, upon being brought into relations with a man, have as a first thought in their minds, "Now, how can I benefit this man?" and who have to constantly restrain their desire to benefit others from the fear of giving offence, or being thought too officious.

Such occupations as the above, however, have to exist by the very constitution of our civilization, and laws of commerce; so that it only remains for those engaged in them to remember the tendency of the occupation to harden the heart, and to guard against it. If it is sometimes true that uneasy lies the head that wears a crown, it must be still more true, though it may be hidden from others, that uneasy lies the head that has acquired wealth by adding largely to the sum of human suffering.

CHAPTER V.

THE PRESERVATION OF THE RACE.

UNDER the head of desire, and sub-division of pleasure, next after self-preservation would come naturally the desire of the individual for the preservation of the race. I have said naturally, because as each one knows he is not immortal, and yet has a natural feeling to want to continue himself, this desire can be most fully gratified only by the preservation of the race, and in it the preservation of his own family. Aristotle says in his *Ethics*, "Parents then love their children as themselves, for that which proceeds from them becomes, by the separation, like another self." (chapter xii.) When a man or woman for some reason has not married, or having married has no children; the desire is seen by their founding and endowing, when they have the means, institutions like colleges, hospitals, museums, etc., and calling them by their own names.

Although a certain amount of passionate love or other feelings may influence men in seeking marriage, yet under it all, though it may be dormant with many, lies the desire to leave a son behind them. Where there is wealth, title, estates, or a large, flourishing business, or an honourable profession, this feeling is very strong; and the disappointment of having no children, and especially no son, is equally intense. But among all men of any serious

thought or endeavour, the desire is there as well; as there is not a working man or small tradesman who is not highly gratified by having a son to assist him, to whom he can bequeath his success.

With reference to women, the maternity feeling is so strong that it seems superfluous to notice it. The whole heart of every woman worthy of the name goes out to the helpless babe at her breast, who needs the nourishment, protection and love that none can give so well as a mother; and maternity is recognized by all when so seen as the tenderest and best form of earthly love.

Now, there is no doubt that the highest duty a man can fulfil in the world is to have children, and to give them as good a position in life as he has himself. "Mencius said, 'There are three things which are unfilial, and to have no posterity is the greatest of them.' " (Chinese Classics, Mencius xxvi.)

With reference to the first part of this statement, we can see it not only in the command, "Be fruitful and multiply;" but in the fact that with all inferior creatures propagation is compulsory, just as compulsory as the necessity for food. They propagate their species because this instinct is so strong they cannot help themselves. In their natural state they easily increase, and by being created to prey upon one another the balance in numbers is preserved. Usually when this balance has been disturbed, the cause is due to man. The Australians, if I remember right, have to thank Captain Cook for the introduction of the rabbit into their country, where there does not seem to have been a sufficient number of wild animals, serpents, or birds to keep them in check.

Man, however, has been allowed greater liberty in the propagation of his species than inferior animals, and, consequently, to the command to "multiply" was added the words, "replenish the earth and subdue it, and have dominion over the fish of the sea, and over the fowl of the air, and over every living thing that moveth upon the earth." This was a command not to be carried to its fulfilment in one generation, or in centuries of them. The hidden truths of nature lie deep, as our own age can testify; for it is only in it that some, never known before, have come to the surface. Now, without successive reproductions, these and what others we know would never have been discovered. Each generation as it has come and gone has added something to the store of previous knowledge. Upon this a further advance has been made by the next, and so on till the sum is what we have at present. Accidents at times have delayed advance. The burning of the library at Alexandria no doubt destroyed much that would have been a link between the ancient and modern world; but in spite of this advance has gone on, and many things well-known to the ancients have been rediscovered, and ignorantly put forward as new truths. And so while men live and propagate, the advance must go on, until the command will be much more completely fulfilled than we can possibly guess.

As then, man must propagate, so it is his duty to do this in the way best adapted to benefit humanity, otherwise the continuation of his name would be a curse, and not a blessing. Take a case, "A remarkable instance of the propagation of criminals was related by Dr. Harris, of New York, at a recent meeting (1875) of the State charities aid

association. In a small village in the country on the Upper Hudson some seventy years ago, a young girl named Margaret was set adrift on the casual charity of the inhabitants. She became the mother of a long race of criminals and paupers, and her progeny has cursed the county ever since. The county records show two hundred of her descendants who have been criminals. In one single generation of her unhappy life there were twenty children; of these three died in infancy, and seventeen survived to maturity. Of the seventeen, nine served in the State prisons for high crimes an aggregate term of fifty years, while the others were frequent inmates of gaols, penitentiaries, and almshouses. Of the nine hundred descendants through six generations, from this unhappy girl, who was abandoned in childhood, a great number have been idiots, imbeciles, drunkards, lunatics, paupers and prostitutes: but two hundred of the more vigorous are on record as criminals. The neglected little child has thus cost the authorities, in the effects she has transmitted, thousands of dollars in the expense and care of criminals and paupers, besides the untold damage she has inflicted on property and public morals."

Education and culture, in short, progress, benefit humanity, and consequently it is the duty of every respectable man to give his children as good a position in life as he has himself. One of the sayings of Aristotle was, "That those parents who gave their children a good education deserved more honour than those who merely beget them; for that the latter only enabled their children to live, but the former gave them the power of living well." (Dio. Laert. Aristotle). A good blacksmith, for example, is a

useful man. If he leave his business when he dies to a son who is as good a workman as himself, or perhaps a better, he has benefited humanity by continuing in it a useful man. So with the medical man. No one will deny his usefulness. He occupies a high position, and though paid is a public benefactor. If he leave three sons, one of whom is a medical man, another a clergyman, and the third an officer in the Army—that is, not a ruthless slayer of men by profession, but a man who for small pay is willing to lay down his life to protect his fellow countrymen and women in peace at home—has he not benefited his country and humanity in the highest way possible? Undoubtedly, for the family and race, so far from suffering any deterioration by his life, have been given a small lift forward by three times the amount in highly useful individuals it had before. And so for parents the begetting and good rearing of children is the noblest part of their life's work.

Parents who have realized this are willing to make any sacrifices to place their children where they are themselves. Surely no sacrifices could be more acceptable to God and angels than these. On the other hand, no moral condemnation can be too strong for the selfish father, who spends on himself, that he may live well, what should have been spent on his children, that they might be an honour to him and themselves, and a blessing to their nation. When children fail, who would have done well but for their father's selfishness, he may not care much—his is too contemptible a nature to realize the enormity of what he has done—but the only pity is that society has no way of punishing such a criminal.

But it may be said that the motive sometimes at the foundation of giving sons a good position is, like "John Halifax," to found a family. Suppose it is, is it a wrong motive? Is it a wrong thing for a man or woman to say, "I want generations of my descendants to rise up long after my death and call me blessed? I want my descendants to be honourable, upright men and women, successful in life, useful in society, their country, and the world?" And if such a man or woman succeed, are they not in the highest degree benefactors of their race? Public opinion, at any rate, thinks they are, for it is from families such as these, whether in council or trade, that men are chosen for the highest positions.

The wife and mother may remember, then, that while children are coming and she is more or less a slave, it is the noblest slavery; which, if conscientiously carried out, may result in making humanity better and her name known and honoured through her children. When a town far away* was recently besieged for months, and through the courage and unconquerable resolution of one man held out till relief came, and honour and inhabitants were saved, what must have been the feelings of the man's mother when the rejoicing crowds of people swept to the square in London where she lived, to shout themselves hoarse cheering her son and her? The helpless babe she nourished, lived to make her famous and the family name a household word.

Of course, with regard to motive, it may be remarked once for all that in this, as in everything, the highest motive is to do right for its own sake, and everything else will take care of itself. If then,

* Mafeking, South Africa.

one does right in the education of one's children, he has done his best, and may consequently hope for the best.

It is just the same with the example he sets them. No wise man does right for the sake of example. On the contrary, he does right because it is right, and because he loves right; and therefore he may with perfect safety leave his example to take care of itself.

Οὐ γὰρ δοκεῖν ἄριστος, ἀλλ' εἶναι θέλει.

(Aeschyl., 'Ἐπὶ τὰ ἐπὶ Θῆβ., 592.)

CHAPTER VI.

LOVE.

NEXT after the desire for the preservation of the race is the feeling of love. This also has desire and happiness for its foundations, as no doubt all who have thought of the matter will at once admit.

Before speaking of that form of it, which will be specially dealt with here, we notice that love is the foundation of the ancient religion of the Jews, and, as moral laws are eternal, is necessarily the foundation of Christianity, which claims to be the completion and perfection of the Jewish religion as set forth at length by the author of the Epistle to the Hebrews, and by its Divine Founder, who said, speaking of the moral law, "I came not to destroy the law but to fulfil." It is easy to see why love must be the foundation of true religion, because "Love worketh no ill to his neighbour," that is, it is the highest form of altruism. It is a pleasant thought, then, that that feeling which we are to exercise towards others is hallowed by having its most perfect manifestation in the Deity. "God is love, and he that dwelleth in love dwelleth in God, and He in him."

But besides the love we are supposed to have as a spontaneous duty towards the Deity, there is the love existing between the sexes, parental love, filial love, love of our relations, our neighbours, and our Queen and country.

With reference to sexual love, we have it instinctively within us, as all inferior animals have. Its highest manifestation, however, is in man; its lowest in the simple desire to propagate the species, found in the lower forms of life, not microscopic. Aristotle says (Book VIII., Ethics), "The friendship between husband and wife is most strongly prompted and enforced by nature itself; for domestic society is more natural than even the political; since it is prior and more necessary, being essential to the preservation of the species, and common to all kinds of animals. But with the inferior tribes this society is limited by the sole end of reproduction; in man it extends to all the offices of life, which naturally divide themselves between husband and wife, each supplying what their respective qualities best enable them to furnish for the accommodation and comfort of the other. The industry and excellencies of each are thus brought into the common stock of domestic happiness, which their distinctive virtues are calculated wonderfully to augment; so that this kind of friendship is recommended and strengthened by every circumstance of pleasure as well as of utility. Their children, too, form a new and powerful tie, being a common good in which they mutually share, and which has the strongest effect in binding them indissolubly together."

The simple desire for propagation, be it observed, however is the *foundation* of all sex intercourse in men and animals, whether of love or simple companionship. Nature shows us that inferior creatures have some way of finding each other. Voice, traces, places of resort, colour of hair, fur or plumage, form, etc., all are employed, and serve their purpose. The

male bird sings, the male deer calls, and the ass brays, for example, and in each case the sound is a pleasant one to the female ear, even to the last mentioned, though we may not admire her taste. With many there is no desire for further companionship; many species are gregarious; while many again consort in pairs, or in a *hârim*, and live together, and seek their food together. Others live in pairs during the time that the young need attention, as, say, the spring and summer; become gregarious for the autumn and winter, and choose the same or different mates for the next season. We see, then, that the desire for companionship and mutual help is often present among inferior animals, and here the sexual feeling approaches affection, or, as it is called among human beings, love. It has then begun to be complex, for with human beings, of all feelings, love may be said to be the most complex.

Let it then be carefully borne in mind, that the sexual feeling is the nethermost foundation of all love, whether it appear—that is, rise up into consciousness—or not. Take it away, and men would feel towards women, and women towards men, as they feel towards their own sex. Its presence, however, is evidenced by every feeling called forth by the opposition of the sexes. The mother likes her boys, the father his girls; the female voice in singing appeals to the male in a way a man's voice, no matter how good, could never do; and in the same way the male voice appeals to the female. The very dress of the opposite sex is attractive. Gestures, which in a man would excite no interest in men, are interesting or pleasant in a woman. Let a man assume a woman's dress on the stage, and if he is

a good actor, the men present will constantly have to correct their feelings of opposite sex interest in him, by recollecting that he is a man. Let men be constantly associated together, and the introduction of female society is a relief; just as the coming into the drawing-room of the men after dinner is what each woman has been waiting for, although their conversation may have been animated enough.

Now, it is natural to human beings to be more attracted by some individuals than by others. This appears among uncivilized peoples as among the civilized, though not in so high a degree. Out of all the unmarried women in his tribe, the unmarried savage will see one who for some reason attracts him more than any other; and the feeling of interest he had in them all, from the opposition of the sex, now becomes centred in one. If the woman is aware of it, and the man's appearance, etc., is agreeable to her, the similar feeling of general interest in men will, in her, become centred in the man; and now the emotion of love is begotten, which is day by day strengthened by intercourse till marriage.

It is just the same among civilized humanity, but much more complex. The educated man, generally speaking, will not be attracted unless the woman has education also. Mistakes in grammar or vulgarity in speech would shock and cause a sensation of annoyance or pain, which would not be pleasant. So culture requires culture, etc., and consequently sensible men generally look for a wife among the women of their own station in life.

It is worth noticing here, however, that in these respects men are not naturally so calculating as women. A man may be so captivated by a face,

figure, and manner in an evening, that the feeling of interest springs at once into, not the emotion, but the passion of love. If his nature is a strong one and not easily turned, he will satisfy himself first if she is free, and then determine to marry her, and do so if possible; and this, although he may subsequently know or hear at the time that her social station is not equal to his own, and that she has no money of her own, that his friends do not approve of it, and will cut him off from intercourse and inheritance. But nothing will stop him. Passionate love is blind, and consequently, everything she does and says is right. She is for the time being the only woman in the world to him, and as long as he has her, he would not trouble himself if there was not another in existence.

“ Und Lieb ist mit Liebe so selig allein.”

What have we found therefore from history and experience? Countries have fought for a woman, kingdoms have been given up, estates and a great name counted as nought; in short, what can be mentioned that has not been sacrificed, as a result of passionate love? But what is to be noticed here is that the man often gives himself away at once, regardless of consequences. Women however, are more careful before they give themselves away. They satisfy themselves, either from where they have met the man, or by enquiries, that he is in all respects desirable. The interest that in the man (often foolishly) is allowed suddenly to spring into emotion and passion, is carefully kept in its place in the woman, till it is clear that everything is satisfactory; when she allows her interest to grow to emotion, and even passion, often stronger and more enduring than on the man's side. Nothing is said

here in reprobation of this caution. On the contrary it is most praiseworthy, for it is certain that if it were found on the man's side oftener than it is, there would be fewer unhappy marriages. For the time comes when passion cools, and then the prospect of a blighted life does not seem such a matter of indifference as formerly.

Although love is a feeling that can affect the body as well as the mind, it is wonderful what an effect it can have upon the mind, and through it, upon the disposition or temperament.

Notice the extraordinary exhilaration of spirit produced by it. Once a man is certain that he is loved by the woman of his choice, and she by the man of her choice, an emotion of delight is experienced, which is strongly evoked by the presence of the loved one, and constantly comes up in their absence when the thoughts revert to him or her. This is nearly always when the thoughts can be disengaged from other subjects.

Many things conspire to cause this delight on both sides, some subjective, and some objective. For the first there is the consciousness of having been preferred to all others, the consciousness of being thought more or less faultless, of possession of the other for life, and for eternity—life is thought too short—and of being valued only for one's self; while objectively the face, figure, sound of the voice, gestures, personal idiosyncrasies of taste, habits, etc., position and prospects in life, all give pleasure; because the lover period (which of course may last after marriage indefinitely) is the one time when one is thought perfect. This is the time too, when love is absolutely unselfish, as Mr. W. S. Gilbert has

so beautifully expressed it in his extremely clever libretto of "Patience,"

"Never a selfish whim
 Trouble or pain to stir,
 Everything for him,
 Nothing at all for her."
 Love that will aye endure
 Though the rewards be few,
 That is the love that's pure,
 That is the love that's true."

This exhilaration of spirit can be seen by friends—for love is often a veritable mount of transfiguration—though attempts may be constantly made to conceal it. With some, voice and manner become more gentle and softened, the face is ever ready for a smile and the ears for a joke, and a distrait habit is changed for one that takes a lively interest in everything. Generally the religious feelings become more awakened also, from the humble thought on each side of becoming more worthy of the other by being better. Feelings of greater charity and sympathy for others may be noticed also, arising from the intense feeling of happiness in the lover making him wish to see every one happy. In short, "*das irdische gluck*," the highest earthly happiness is present, and will appear unconsciously in spite of the belief that it is so cleverly veiled as not to be noticeable.

Again, love is with many a tremendous spur to action, especially if it come early in life. Persons of both sexes have learnt music, vocally or instrumentally, to make themselves more acceptable; or languages, or painting, or have been influenced in the choice of a profession, or of a university career,

Or again, when engaged in their studies, they have worked hard and steadily to distinguish themselves, and to make a name that the other will think it an honour to take. Consequently, it has happened that many men and women have been distinguished in after life in the various paths of literature, science or art, of whom the world would never have heard had they not had an early love; and this, though from various causes, it may have happened that they never married the object of their early attachment. Tennyson beautifully says:

“—For indeed I know

Of no more subtle master under heaven
Than is the maiden passion for a maid,
Not only to keep down the base in man,
But teach high thought, and amiable words,
And courtliness, and the desire of fame,
And love of truth, and ail that makes a man.”

So, too, after marriage the love of the husband for the wife will be a great incentive to ambition. “He that is married hath given hostages to fortune,” Bacon says in his *Essay on Marriage*, and there is many a man who never realised the meaning of the words, till he found that a better position than his present one was necessary to make his wife comfortable and happy.

Constancy also is often begotten by love, and may continue while life lasts, with some, even when not springing from the highest motives. The French author, Cherbuliez, in his *La Ferme du Choquard* (chap. iv.), is responsible for the following:—
“Quand la chair est contente, l'esprit est bien près de l'être. * * * Spinoza n'a t-il pas dit que l'amour est une joie à laquelle s'unit étroitement

l'idée de sa cause? Plus la joie est intense, et plus la cause est évidente, plus aussi l'amour a de chances de durer."

With some natures, constancy may be the case although the attachment was sudden enough to be called love at first meeting. An instance like this happened which is perfectly well authenticated, where the man, like Jacob, waited seven years before being able to marry the woman who had so suddenly and irresistibly attracted him. Other instances have happened where a man saw a girl of fourteen or fifteen, and resolved to wait for her, actually did so, and married her.

To sum up, then, there is not much that a man or a woman either will not do for love, as far as lies in his or her power. Poetical quotations might be given to any extent to set this forth, but they are unnecessary, as every one knows that love has been the poet's principal theme since poets first wrote and bards sang. We may, however, conclude with some wise words of Sir Thomas More, which occur in Chapter viii. of his *Utopia*:—"For as love is oftentimes won with beauty, so it is not kept, preserved, and continued but by virtue." Being so won and preserved it will realise the truth of the French novelist's words in speaking of a marriage of love. "*Le vieux rebbe avait eu raison de dire, qu'en dehors de l'amour tout n'est que vanité; qu'il n'existe rien de comparable, et que le mariage avec la femme qu'on aime, est le paradis sur la terre.*" (*L'ami Fritz.*, p. 349 *Erckmann-Chatrian.*)

With reference to celibacy, although it is a subject that belongs more properly to ethics, yet a few words may be tolerated here concerning it, as it is

naturally suggested by some of the foregoing thoughts.

There would appear to be two ways in which it may be an advantage for the individual, either temporarily or permanently.

If one has determined to do a particular work in life, and is convinced that all his time and energies (the masculine is used for convenience, the feminine being included by implication) will be needed for that work, he may consider it better, both for himself and a possible wife, that he should remain unmarried. Married he would have duties to discharge towards wife, children, connections and society, which would take a great deal of time and money. The practical question, then, for him to ask himself is, can he do both properly; what he wants to do, and his married duties also? In some cases the question has best been answered, by his finding a help meet for him, by whose aid the life's work, in spite of married duties, has been better carried out than it could have been alone.

There is another consideration, too, which is that when too old to work longer, he may be absolutely alone, and too old to marry except for a nurse. "*Il vaut se marier jeune, que de prendre sa servante pour femme, comme font tous les vieux garçons.*" (Eckmann-Chatrian.) On the other hand, woe to the man who wants to do a life's work and finds himself a Socrates joined for life to a Xantippe. Solomon's warning about the corner of a house-top must be familiar to all; and it may be said in passing, is true for either sex; the reproof in line 293 of the *Ajax* of Sophocles,

"Γύναι, γυναιξὶ κόσμον ἢ σιγὴν φέρει,"

will be familiar to Greek scholars; while some may remember the first canto of Dr. Syntax,

“ ’Twas not the custom of this spouse,
To suffer long a quiet house,
She was among those busy wives
Who hurry scurry through their lives,
And make amends for fading beauty,
By telling husbands of their duty.”

This last however, may apply to either sex, for there has been many a husband of whom it could be said—*Mutatis mutandis fabula de te narratur.*

Lastly, St. Paul in I. Corinthians vii., 32-34, has a word on the same subject. “But I would have you to be free from cares. He that is unmarried is careful for the things of the Lord, how he may please the Lord; but he that is married is careful for the things of the world, how he may please his wife.”

Secondly, where life may be endangered, celibacy may be better. Where the danger may be temporary the celibacy naturally may be so also. Life is less valued by a single man than by the married, for obvious reasons. The War Office, then, is wise in limiting the married roll of a regiment for this reason, and for others, as the forming of ties in localities, and the expense of the removal of numbers. So those who go to spend their lives among dangerous or savage nations, will value life less if single.

That celibacy is a higher spiritual state than matrimony, is not in my opinion to be allowed for a moment. Those who say that the words of Revelation xiv., 4, apply to the married state, forget II. Corinthians, xi., 2; Hebrews, xiii., 4; I. Corinthians, ix., 5, etc.

Secondly, to say this is to insult the chaste of the whole female sex, who in their own sphere, are the equals of men, and are naturally more religiously inclined than men.

Thirdly, it would appear to be a strange commentary upon the command in Genesis i., 28, to say that if we obey this command, for which we are placed in the world, we will not occupy so high a spiritual state as if we disobey it. Further, if in obedience to it, and desiring the so-called higher spiritual state, marriage ceased generally, in a hundred and fifty years the human race would be extinct.

Lastly, celibacy is not a human but an angelic state (St. Matthew xxii., 30). Now we were placed in this world not to be angels, but human beings, men and women. Our highest duty then, as we shall see when we come to consider the *summum bonum*, is to be perfect men and women. If we attempt more we fail by over-reaching. The hackneyed quotation from Horace's first satire tells us, as if expressly written for this:—

*Est modus in rebus, sunt certi denique fines
Quos ultra citraque nequit consistere rectum.*

Concerning parental love, like that of sex, it is founded upon desire, though in a different way. The parent's desires are mostly altruistic; that his child shall be everything that is admirable, that it shall be happy, that it shall take a high position, etc. His own desire is gratified by possession of the child, and by the hopes he has of its future. The maternity desire of the mother is gratified by an object to care for which is part of herself, and which is absolutely dependent upon her. Her love,

naturally, goes out, then, to the child very strongly, and is manifested in what she can do for it.

From this we can see that the possession of children fosters unselfishness in the parent, and so educates some of the highest faculties of their nature. The father toils that there may be plenty for the child; he is willing to be deprived of sleep that the child may rest; he labours to make money that the child shall be educated at the best school and university his means will permit. Money that is grudgingly given to charities or other objects is gladly spent on the boy. If means are limited, the father's one regret is, not that he has not more for himself, but for his boy; and where means are abundant, the danger often is that money will be allowed in such profusion as to do more harm than good.

For it all, the father, for thanks, only wants to know that his son thinks him kind; and for results, that he will worthily fill the position in life he will be called upon to occupy. Let this take place, and the father will go down to his grave in peace. Every one has noticed that after the children are well launched on the sea of life, the father's highest pleasure is in talking of them, and in hearing from them. Go into any club of young men of mixed ages, and you will find the inquiries and conversation turn upon the events of the day. Go into the club of the retired seniors, and you will see the papers studied for gazettes, or results of examinations, or more anxiously for the results of the actions in the war that is going on abroad, for many have a son or sons there. The first inquiries are about the success of children; or if they have done

well, it is news to impart. All this is as it should be, and is after all very pleasant to see. It is very unselfish, and is tolerated by friends rather than mar the principal delight left to declining years.

Filial love, on the other hand, is founded largely upon purely egoistic desire until earlier manhood is reached, and the child has become independent. Then respect for the parent is joined to a desire to help and protect, which manifests itself later on in practical ways. No child, however, realises what his parents did for him until he has children of his own, or experience has forced it upon him. It was this that sent Dr. Johnson to stand a day in the rain by the bookstall. Happy is the child, however, who realises what his parents did for him while they are alive. If the realization comes only after their death, there is often a life-long regret for many a careless or ungrateful word or act, because there is now no chance to say so.

CHAPTER VII.

HOPE.

THIS is another feeling of which every one will acknowledge desire to be the foundation. It is, to define it as simply as possible, the expectation of good. Now good, from the simplest notion of pleasure to the highest and most lasting happiness, is what we all desire. We want it now, to-morrow, every day in the future. Whether we enjoy it now or have it not, hope buoys us up with the expectation that it will come, and so helps us to bear present ills. When these are severe and long continued, were it not for hope, millions would give up the battle in despair; but as the hackneyed quotation tells us:—

Hope springs eternal in the human breast,
and they live on and continue the struggle.

This being so, it is a matter for surprise that it has not been more frequently treated of than it has, by those who have written of the feelings and passions of the mind. Where one would have expected to find it in a prominent place, it has often been passed over in silence, or simply defined, or considered as a source of error.

We notice that it is brought into action very early in life. One of the first things the child learns is its own weakness, and parts of its own limitations.

Left to himself he would be conquered by his environment. He sees that children larger than he can do things he cannot; that these can be surpassed by those larger than they, and so on, up to his parents. These, whether he be the child of working people, of gentry, or of nobility, he regards as able to do everything human; and continues to do so till disillusioned by advancing knowledge. As he cannot be now what these others are, and asks why, he is told he will grow bigger and stronger every day; and thenceforward hope has taken a place in his mind. So it is with the individual possibilities of pleasure that the future holds out; the holidays, the special festivals, the articles of property promised to him; all are hoped for and looked forward to with delight; and the hope is often used by nurses and parents to soften present disappointment, or soothe present pain.

As the child is the father of the boy, as the boy is of the man, we have the same experience repeated in boyhood. The formula is changed from "When I am a boy," to "When I am a man." Hope, however, is not only still there, but stronger, and it is exercised about more advanced objects. Manhood with its freedom, its power, its amusements, its dignity, its work and wealth is looked upon as a *summum bonum*. School hours are long, but they prepare for the glories of the university. This may be a bit of a grind, but it is the best preparation for manhood. So, by the right thinking lad the work of boyhood and youth is faithfully done, for he hopes for the rewards in manhood. When a father encouraged his sons, working hard for the degree of their profession, with the words, "It is worth while to work like a slave for five years, that you may

take it easy for fifty," hope spurred them on to success. They believed him when he reminded them of Horace,

Vita labore dedit mortalibus nil sine magno.

So is it with early manhood. In every trade or profession we find zeal and energy in the young, for each one hopes to do great things. The second lieutenant may be an admiral or a general in embryo; the young builder or merchant, a millionaire; the young politician, a lord; the curate, a bishop or an archbishop; and so on. Each one hopes, though he cannot be certain that he will ever get to the top in his profession; and as each one hopes he works, and by yearly successes is beguiled on day after day to continue working, for some must reach the top, and why not he? When middle life is reached, many have succeeded in proper proportion to their age and early position, and hope still beckons them forward. Many have partially failed, but hope whispers that success may come yet; while the total failures, if all is gone, still hope for outside help.

When old age has come hope is still there. The great pleasure of this period is reminiscence,

—"To shake

His years away and act his young encounters"; but to the man of religious belief, there is the hope of a happy future. This is where religion may give its brightest consolations, for age has not many earthly ones. The power to enjoy is gone, old friends and relatives may all be gone; no one wants the companionship of the old. "Age," as Ossian has said, "is unlovely;" and some lady has written—though very wrongly—that the most useless thing in the world is an old woman.

One thinks, naturally, in this connection of the

twelfth chapter of Ecclesiastes; or the description in the Satire of the Roman poet of the infirmities of age. The evil days have come, and the years drawn nigh, when the man says, I have no pleasure in them. What then remains? The hope of immortality, of eternal youth, eternal happiness, the best torch to carry as one descends into the valley of the shadow. And so blessed hope like a guiding angel, beginning with our dawn, lures us on through the brightening glories of the opening day; and thence through the oppression of the noontide heat, to the lengthening shades of eventide; and quits us not till we have sunk into the last oblivious sleep of darkest night, for only then is its work done.

How necessary hope is to our happiness but few consider, as nearly all think not of it, but of its realization. It is not generally known how wretched we would all be, could we have at once everything we want, and have no hope left. Bacon says in his Essay on Empire, "It is a miserable state of mind to have few things to desire, and many things to fear; and yet that commonly is the case with kings, who being at the highest, want matter of desire, which makes their minds more languishing. . . . Hence it comes likewise that princes many times make themselves desires, and set their hearts upon toys; sometimes upon a building; sometimes upon erecting an Order: sometimes upon the advancing of a person; sometimes upon obtaining excellency in some art or feat of the hand; as Nero for playing on the harp; Domitian for certainty of the hand with the arrow; Commodus for playing at fence; Caracalla for driving chariots and the like."

What spurred them on in these pursuits? Only the hope of success, and of public applause. Thus

it is evident that men who have few hopes—all must have some—make themselves more. They certainly would not do this if they had not consciously or unconsciously learnt the lesson that as we are constituted, hope is necessary for our happiness. So it comes to pass that the man or woman who has absolutely lost hope, will rush upon their own destruction; for no more correct motto was ever designed than that placed by the poet over the gate of his imaginary hell:—

All hope abandon ye who enter here.

From this it will at once appear that it is the best possible thing for humanity, that the majority is not born rich, or to high positions; or, to put it in another way, that all men are not equal in position and wealth, as certain badly educated dreamers in the past and present have desired, and still do.

The wealth of the world if divided equally among humanity would, it has been computed, give to each person about six pounds. The necessity for work would remain then just as strongly as at present, for a family of six could not live long on thirty-six pounds.

But suppose that when divided it gave every man, woman and child, a competency for life; who could live on their money? The spur to acquire money, that is the hope of getting it, being gone, who would work? Every tradesman, farmer, professional man, banker, writer, etc., would knock off; and an outcry for the necessities of life, bread, meat, vegetables and clothing, would at once arise. Who would supply them? The baker would say that as he had money he would make bread for his own family only, but he would want flour. The farmer would supply himself only with flour, grinding it himself; and,

like the baker, only then upon the compulsion of his own wants. As no one would supply anyone else with anything, the next immediate project would have to be an attempted division of the land of the world into farms, whereon each man and his family could live without servants, and be self-supporting in all the necessities of life. Cities would be useless, for no one could live in them without others to bring them supplies for their daily wants; all travel by land and sea would cease, for where would the hands come from to drive trains or steamships? and in short, mankind would have at once to revert to its primeval condition,

When Adam delved and Eve span,
Who was then the gentleman?

these dreamers are so fond of talking glibly about.

But there would again be another initial difficulty which did not trouble Adam and Eve. This would be that every man being placed upon a farm (were it possible considering the population of the world, and the amount of arable land), no one but the farmers would know much about farming. As each one's wife would not know spinning and weaving without instruction, to the man's incompetency to obtain food, and make what implements he wanted, etc., would be added his wife's incompetency to make clothing. If, then, the difficulty of food was temporarily averted, they would soon be reduced to covering their nakedness with the skins of animals; for who would make looms for the few women that could weave? This would mean one step further back towards, in short, the life of the savage; where the things we consider necessary are not used, because they cannot be got.

But it may be said that it would not be so bad

as that, as men would be more like pioneers in a new country like Canada, or Australia, or the United States a hundred years since. The reply is this could not be, because these settlers had a world of supply to draw from when they wanted a rifle, axe, or rope; while our charming condition of *égalité* supposes no workers to keep up a supply. It must suppose every monied man who wants rifle, axe, saw, rope, or coat, able to produce them, and make them on his own farm; for his farm must contain all the metals he needs, as other wealthy men would not smelt iron, for example, to sell it to him.

From this, then, it is plain that if all the money and land were divided equally, and were it possible to give everyone a fortune of the one, and a farm of the other; the almost immediate result would be a return to a worse than savage life, where money would be useless; with violence to get what each wanted; as who would have time to make laws, or see them enforced, when trying to teach himself farming, and other trades necessary for existence?

But by the present system of the majority being workers, and having to make money, and hoping to succeed, the world of humanity manages to wag on, and get all its wants supplied. So it will continue to do, so long as men have something to hope for in the way of wealth and position, and consequently a spur to exertion. Men who talk so easily about disturbing existing institutions, forget that if mankind is at least 6,000 years old, the present arrangement is the result of 6,000 years of experience; and that as men retain only what they want, and dispense with the unnecessary, the probability is that what we have, we possess because it has been found to be the best as yet attainable.

CHAPTER VIII.

AMBITION.

AMBITION is plainly founded upon desire, for the ordinary meaning now given to the word is a desire to rise in life. It is a feeling, but may easily rise to an emotion, and pass on to become a passion, and the strongest ruling passion of a life.

A great deal of disputation has taken place about it, no doubt upon the "give a dog a bad name" principle; for the word has not a good origin. As most people know it is derived from the Latin word, *ambire*, to go about—that is, here and there—and was used in ancient Rome of candidates for office, who went about soliciting votes, just as our own parliamentary candidates do yet. It was also formerly applied in our own language to men who solicited office and place, and were supposed not to be very particular about what they did or promised to get it. This will help us to understand Shakespeare's calling it a sin, as indeed it was in the case mentioned.

"Cromwell! I charge thee fling away ambition;
By that sin fell the angels."

What would seem to be the simplest way to form a judgment upon it is to define bad and good ambition. Bad ambition is when a man aims at what he has no right to desire, and is not scrupulous what means he uses to get it. This is the worst form. A

milder form is when one aims at a proper object of attainment for him, but uses unscrupulous means.

Good ambition is when one desires to rise in life by honourable means. The probability is that all sensible people are agreed, that bad ambition is wrong, is what Shakespeare called it, a sin; while good ambition is perfectly proper.

Let us notice one or two instances of bad ambition, premising with an observation of Hume's it is necessary to bear in mind, as it will help us to understand the secret spring of many instances: "When ambition can be so happy as to cover its enterprises, even to the person himself, under the appearance of principle, it is the most incurable and inflexible of all human passions."*

The history of the later days of the Empire of Rome is full of instances of the most unscrupulous ambition; where over and over again, one may read in the Annals of Tacitus how men and women were guilty of every crime from incest to murder, to compass their ends; the main effort being either to conceal the crime, or give it a sufficient complexion of principle or necessity to excuse it. The life of Agrippina, the mother of Nero, may be taken as a specimen of the *ex uno disce omnes*.

The history of our own kingdom, too, can furnish repeated instances of sinful ambition accompanied by crime, and all readers of history know that it has been the same in every country and in every age. Cromwell has appeared to some, like Carlyle, as he appears to many yet, a hero; while to others he is a regicide, and the incarnation of every evil. This is but the usual accompaniment of history, as

* History of England, I. Cap. 4.—Hume.

Plutarch long ago pointed out in his life of Pericles. He says, "So difficult is it to come at truth in the walk of history, since if the writers live after the events they relate, they can be but imperfectly informed of facts; and if they describe the persons and transactions of their own times, they are tempted by envy and hatred, or by interest and friendship to vitiate and pervert the truth." It is, indeed, in writing history as in life, as Mr. H. Spencer shows in his Sociology, bias influences everyone.

With regard to Cromwell, I am disposed, however, to see in his desire that his son should succeed to the rule of the Commonwealth, the hidden spring of most of his actions in life. It is a common saying: that dying men speak the truth, and this was his wish. Had he been disinterested in his professed desire for the good of the country alone, he would have wished that the man best fitted for the post of governing should have it; with the opposite intention in his mind of the "*Pulcherrima me habuit*," of the Goddess of Discord of old. The late Mr. Gladstone professed to be disinterestedly working for the good of his country. Whatever we may think of his views, no one can say that he was not consistent, for he never took the Commoner's usual reward, a peerage. His motives then, are above suspicion.

So there are many in France who regard the first Napoleon as a hero, for the power and glory he gave the country. His, however, was a most ignoble ambition, while when we think of the morality of his acts, we are struck dumb with the enormity of their turpitude. To slaughter tens of thousands in order to filch the thrones of kingdoms from their rightful possessors, and place his own relatives on them as

his puppets; was simply highway robbery, on a tremendously magnified scale. Gratified ambition with him, resolved itself into a lust of power so strong as to be the ruling passion of his life; and no one can think Wiertz, in his gallery of paintings at Antwerp, has been too severe, when he represents *aux enfers*, the souls of the almost innumerable ones he slaughtered so selfishly, as anxious for revenge.

Beside such an instance place a man like Scipio Africanus, or Garibaldi, determined to save his country or perish, and when it is saved standing aside for the proper ruler. No one need despair of humanity while it can produce such men as these, or many others of the brightest examples of the earlier days of the Roman Republic, when "all were for the state."

But let us turn to proper ambition, when one desires to better his position in life by lawful means.

No more silly fallacy has ever been gravely propounded to the world than that of the socialists, that "all men are born free and equal." The absurdity of the "free" will be dealt with, if necessary, but here we are concerned with the "equal." If by the word "equal" it is meant that all men are born human beings, it is but the assertion of a truth patent to every child, for no one ever said they were not. But if it means that in any one respect except in the eye of the law they are born in a state of equality, it means what is impossible.

For two children to be born "equal," it would be necessary for them to be exactly of the same weight and personal appearance, sex and size, and latent physical, mental, and moral powers, and hereditary possessions to the fraction of a farthing. They

would need to have environment exactly equal in every respect, lest that of the one should be a little better than that of the other. This would mean that they must have equal parents, of equal possessions, of equal appearance, size, dispositions, knowledge, and position in life; and all this would require to be extended to the nursing and attendance, etc. But this is manifestly impossible.

Putting aside the question of birth as regards wealth or social position, what do we find on the other hand with reference to all men being "born equal"? We find one child of strong physique, who grows up to be six feet or six feet four inches in height, and in strength he may be a small Goliath. We find another, fed equally well, who attains the height of only four feet four inches, or less. One grows up hating school and books, and will only work with his hands. Another, the child of working people, has a big head, and cannot be kept away from books. One cannot be kept from evil companions; another never wants to know them. Of those displaying a love for books, one may far excel the other. Another is frugal. Give him a sixpence, and it will soon be half-a-crown, or a half-sovereign; while give another a fortune, and he will be a poor man again in a few years, so impossible is it that all men could be born equal.

Now, as this is the case, we find in every rank of life children with predilections that cannot be kept down. When this is so, Bacon's advice to parents in his *Essays* is, to let the child choose his own profession, for in some way the bent of his inclination will irresistibly declare itself.* It is told of a late Lord Chancellor of England, whose father was a

* When no very strong predilections are seen, he says it is best for the parent to choose for the child.

hair dresser, and had a "good connection," that the father one day remarked to a gentleman customer that his son had no ambition. That while he might be earning a good living by cutting the hair of the nobility and gentry, he was wasting his time on useless books.

Plainly, then, if from such beginnings a Lord Chancellor could come, is it right to say that any child should be kept down, no matter how humble his sphere, if he feels within himself the spirit that would soar to higher things? Certainly not, and fortunately for the country we have a common school system that helps to solve the difficulty. Attendance here is compulsory up to a certain point, and the school thus becomes, with the children of all classes, the great sieve for showing that with reference to abilities, those who attend them so far from being "equal," are like sand mixed with shingle. Some children try by every means in their power to evade going to school altogether, or if compelled to go, do as little work as they can, and that reluctantly. Others finding no help for it, attend and work with a view to getting it over as soon as possible. Others try honestly to work, but cannot, not having the brains. They are always in trouble, and always at the bottom of their classes, and like the reluctant ones want their dismissal as soon as possible. On the other hand, some from the very outset like it. Learning their tasks seems to come natural to them. They easily take high positions in their classes, and as they advance, hearing of universities where they may go on studying, beg their parents to send them there; and in many cases, if their parents have not the means, work for scholarships, or failing

these, get some work by day to make money, and then attend evening classes. They want education, because they cannot help it, for a noble ambition to rise spurs them on. The lives of self-made great men are the biographies in which they revel. Smiles' *Self Help* is their *vade mecum*. Such men as Inigo Jones, Watt, Stephenson, Whewell, and Carlyle are to them heroes, whom they are most anxious to imitate.

At the universities it is the same as in the schools, *mutatis mutandis*. Some go for a few terms to be able to say they have been there; others take a pass degree for the same reason, while others work very hard for a good degree to help them in their after profession. Others work to get a fellowship, or to spend the rest of their lives at the university, where they may go on reading, and always be directly in touch with the most advanced thought.

With others, whose ambition is to make money after they have left their school, it is just the same. With a determined purpose in their mind they take up a trade or clerkship, and nothing can keep them down. Trace their careers, and some years after you will find them wealthy men, or partners where they began as clerks.

In republics like the United States of America ambition is taught as if to be worshipped as a cult. The child even is told that he may if he please be president of the great republic, and undoubtedly the constant reiteration of ambition has an effect as a spur on all minds among the young.

With us, however, it is not so highly magnified, not because it is necessarily more difficult to rise; but that the conservative tendency to be satisfied

with the father's position is stronger than in the United States. There the character of the man would not be readily understood whose highest ambition is to be head gamekeeper on the Duke's estate, a position occupied by his forbears for several generations. He has heard sermons in the village church on the text, "My son, fear thou the Lord and the king; and meddle not with them that are given to change;" and thinks he can best carry it out by staying where he is. He might do worse, for the ties between the master, son of masters for generations, and the retainer, son of honest retainers for generations, are stronger than many suspect; and could not be broken without a sharp wrench on both sides.

But all the same, men can rise under the free institutions of England just as easily as in a republic. The words of the catechism are "to learn and labour truly to get mine own living, and to do my duty in that state of life unto which it shall please God to call me." The child is taught that liberty for ambition is given by the use of the future tense.

The rewards, too, in England are numerous. Titles and decorations may be called by some empty baubles; but while the world has stood, and while it will stand, they will be valued. The reason is simple; they are the hall-mark of worth, and of this Mr. Spencer says in his *Sociology*, "One of the most massive and enduring gratifications is the sense of personal worth, ever afresh demonstrating itself to consciousness by effectual action; and an idle life is baulked of its hopes partly because it lacks this."

Everyone who sees the title, decoration, or medal, knows that it has a value, not the least part of which is that it silently but eloquently tells of the position or work of its possessor. That the value of these is acknowledged at heart in a republic as much as under a monarchy, all who know human nature are well aware of. The French, for example, love a decoration. Those who have read Artemas Ward's book will remember a chapter written during the civil war, in which he describes the enrolling of a company of captains, as he found that every man in the country wanted to be an officer; while some American wit has written that formerly in the West, if you addressed a stranger by a less title than judge, or colonel, you might expect him to write the title on your body with revolver bullets.

Titles, decorations and medals, then, excite ambition and give a spur to exertion, and inasmuch as they are the signs of worth, to obtain one honestly is a very natural desire; and while all agree that the best ought to be done for its own sake, no man yet who ever did so unthinkingly, and so, to his surprise won, for example, a Victoria Cross, would think himself demeaned by wearing it.

Noble ambitions such as the above, all will acknowledge are good and useful; as in hundreds of instances the ambition has not only raised its possessor, but has been a means of giving some lasting good to his country in the departments of religion, merchandise, art, science, war or politics. It ought consequently to be encouraged when school-masters or employers find superior abilities in no matter what class. In one way it is encouraged by the first-mentioned to aid their schools, as when one

sees an advertisement that a very clever boy will be received and educated for nothing.

It is quite true that the one disadvantage of the modern school system is present with us in perhaps a greater degree than in a republic. This is the ever-growing belief among the young, that a better position can be got by working with the head than with the hands. This belief is more apt to arise in a monarchy than in a republic. In a republic the man who works with his hands thinks himself as good as the man who works with his head, and does not hesitate to tell the latter so in plain words, if the question come up. But in a monarchy, with a hereditary aristocracy, the man working with his hands would hesitate to say this to a barrister, or clergyman of the establishment, or to a member of the landed gentry; for he does not believe it; or whatever he may believe he finds the classes treated differently by society. The man in the republic may know this, and see it plainly enough, but he has his belief all the same.

But the consequence is that in a monarchy the young of both sexes prepare for clerkships, or shop assistants, or anything but manual labour; thereby causing these professions to be enormously overstocked, while the servant and agricultural questions increase in difficulty. This, however, can be partially obviated by stronger teaching upon the dignity of labour, and by pointing out that many who have attained high positions or great wealth began with manual labour.

In another way it is, however, beginning to right itself, as all such questions must eventually do, by the inexorable law in political economy of supply and

demand. It is beginning to be seen that, above all things, food upon which to live is the first necessity, and in consequence a re-action is commencing in favour of paying manual labour as against starving semi-gentility. When a woman finds that as a good cook she can command a high salary, with help given her, her common sense tells her that she will be more comfortable as a cook than as a starving governess or shop assistant; and consequently many born in a higher position than either choose this profession. A bank clerk may work thirty years with long hours, and never get beyond £300 a year, a sum absolutely inadequate for his position in later life. On the other hand the clever chef can command from £500 to £600 a year, with the prospect of developing into a large restaurant or hotel-keeper and wealth, and meanwhile is a small king in his own domain.

CHAPTER IX.

VANITY, SYMPATHY, PITY.

BUT few words will be given to these three feelings. Vanity is founded directly upon desire, and what is desired is the praise or the admiration of others. As everyone knows, the word means emptiness, and the implication is that the vain man is an empty-headed man. This, however, is not always true, for vanity in some form has at times been a weakness of some great men, a few of whom could never conquer their desire to display themselves in one way or another.

Perhaps the most accurate meaning of the word is too great a desire for display; for there can hardly be said to be a man living who, if he does a thing well which is his daily occupation, does not like to have it acknowledged. This is his guarantee of success for the future.

The late Reverend F. Robertson, formerly of Brighton, has touched upon it in his sermons. (Sermon XVIII). He says, " We can easily find out the vain man. We soon discover what it is he wants to be observed, whether it be a gift of person, or a gift of mind, or a gift of character. If he be vain of his person, his attitudes will tell the tale. If he be vain of his judgment, or his memory, or his honesty, he cannot help an unnecessary parade. The world finds him out, and this is why vanity is ever looked

on with contempt. So soon as we let men see that we are suppliants for their admiration, we are at their mercy. We have given them the privilege of feeling that they are above us. We have invited them to spurn us, and therefore vanity is but a thing of scorn."

This passage, however, plainly goes too far, for as appears at once, it mingles in one common crucible some of the most ignoble and noble personal attributes of humanity. We can speak of persons as vain of their appearance, but we do not generally speak of persons remarkable for judgment, memory, or honesty, even if they like it to be known, as vain. We usually say, if these are displayed, that the possessor "is a little proud of his judgment," or memory, or honesty; and this evokes the reply, "I would be proud of mine were it as good." But this reply is not forthcoming when one is vain of childish or feminine attributes.

Further, everyone who does anything in public must be more or less a "suppliant for their admiration," that is, he must please; and if he please, he is gratified, but not necessarily vain. The actor or actress who is hissed off the stage persistently, is dismissed by the manager. The clergyman who, in discharging his duties, empties his church, though he retain the living, is not regarded by his bishop as a success; while if a curate he must go. The general who loses battles is recalled, while the successful one, praised in despatches, is promoted.

Again, the man who appears in public in the way of duty, that is, to earn his living, does not give men "the privilege of feeling that they are above" him (they may all be his inferiors in his profession),

but only the privilege of comparing him with other competitors in the same field. At the same time no matter what a man's attainment, if he make himself obnoxious by thrusting it forward at all times, whether seasonable or otherwise, if not voted a vain man is soon voted a bore; like mistaken people who, because they are sincerely trying to do good, think they are justified in forcing their work upon their neighbours upon all occasions.

On the other hand, there is the negative vanity of self-depreciation, for the sake of contradiction. This, though not so gross as the other, has the same evil of directing attention to one's self or one's affairs, for the man genuinely free from vanity is the one who, in the society of his kind, is desirous of having as little as possible of the time or attention of the others present taken up with his concerns.

But the genuinely vain man is bound to fail in reaching what he desires. Dr. Maudsley in his book on *Body and Will* says of this (p. 286), "But vanity like other egoistic passions, cannot ever obtain its completest gratification if it is too self regarding; for it then defeats its own end of attracting praise and admiration, and brings on its possessor dispraise, ridicule and contempt."

This is not the place to say much of the antidotes to vanity, but the best one it has been my experience to see has been given by old Dr. Johnson, with his usual ponderous, sledge-hammer force, in the *Rambler*, Vol. III., p. 159: "But the truth is that no man is much regarded by the rest of the world. He that considers how little he dwells upon the condition of others will learn how little the attention of others is attracted by himself." Needless to add, vanity is a pleasurable feeling to its possessor.

Sympathy, as the word implies by its derivation, indicates either a feeling of joy on account of the happiness of another, or it is a feeling of suffering with another, and in the same way as far as possible. In the first case it is a pleasure, and in the second partly a pleasure and partly a pain. It is an unalloyed pleasure when we sincerely sympathise with the happiness of another, and when we sympathise with suffering it is a pleasure in that we are conscious of doing a kind action to try and lessen the pain of another; and a pain, first, in that the suffering we see may cause the pain of grief within us; and secondly, pain that we cannot lessen that suffering. It ought to be cultivated, and exercised by all.

We can see at once what it means by speaking of one as a man of broad sympathies. The heart, naturally, goes out towards such a one, for there is a feeling that he will not be appealed to in vain, and that his love must be deep, and his experience wide, to have so broadened his sympathies.

Sympathy, like the other feelings, is grounded upon desire, for what does sympathy with another mean? Expressed it is, "I desire to rejoice in your happiness, or to lessen your pain and sorrow; and as this last is not literally in my power, my sympathy shows that I would if possible."

Sympathy, then, is very valuable. In our rejoicings it is natural to turn to friends, for a joy told is a joy doubled; while in our difficulties and sorrows the sympathy of friends lessens the burden by one half. Physical pain it cannot alleviate, but it strengthens the mind of the sufferer to bear it. Sad, however, is the case of the man or woman who suffers absolutely alone, with the consciousness that no one cares.

Like the other feelings, sympathy may be a feeling, an emotion or a passion. Beginning with a feeling it may be carried so far that both means and life may be sacrificed to show it.

Pity is closely allied to sympathy, and is also partly a pleasure and partly a pain. Like sympathy it is founded upon desire, partly egoistic, and partly altruistic. With the large hearted and generous it is usually both, while with many it is the latter. Both are useful, for both do good, for if our neighbour is in distress and need, pity to be useful ought to take as practical a form as possible. The old story of the Quaker, who, in the crowd standing round the man who had just lost his horse, said to his neighbour, when all were expressing pity for the poor fellow, "Friend, I pity him five shillings, how much dost thou pity him?" is the best exemplification of pity when needed, and when possible. There is a certain amount of truth in the common saying that pity is akin to love.

CHAPTER X.

FEAR.

IN dealing with the subject of the mind, it must have been evident to the most casual reader that it is one of the most complex subjects that can occupy our attention. Every day nearly each of its powers is called into operation to a greater or less extent. These powers being all in the same mind, are more or less connected with each other. Thus it happens that the working of the one may involve the co-operation of others, and so it is not possible to write intelligibly of one without presupposing on the part of the reader a certain natural knowledge of that one, but of all the others, before he begins his study.

The subject is very different then, from Euclid or Grammar. In Euclid one can learn the first proposition without any mention being made of a later one. Such mention could not be relevantly made. But in writing of the mind, to describe the first steps, mention must be made of some to be elaborated after, as if they were already known. For this reason, therefore, the writer, though actually advancing all the time, may seem to be anticipating, again retiring, and once more advancing.

The feeling of fear is, in all its stages, unquestionably one of pain, rather than one of pleasure. It is true that Byron, in his familiar and beautiful

lines upon the ocean in Childe Harold, says, in words that express the feeling of every swimmer:

“ And I have loved thee, ocean, and my joy
Of youthful sport was on thy breast to be
Borne like thy bubbles, onward ; from a boy
I wantoned with thy breakers ; they to me
Were a delight, and if the freshening sea
Made them a terror, ’twas a pleasing fear,” etc.

This, however, is only another way to express the pleasure that young men experience from the possibility of danger, as in controlling high spirited horses, sailing a yacht in a stiff breeze rather than in a calm, etc. ; for genuine fear is not pleasing, but painful. No one who is afraid is happy, neither can he be indifferent without effort, and therefore there must be pain.

Fear is the expectation of misfortune and is associated with desire, for we fear either for ourselves or for what we have, as friends, property, etc. Now self-preservation, that is the desire of life, safety and comfort, makes us fear for ourselves, and desire makes us fear for friends, or property, neither of which we want to lose.

Fear may begin with apprehension or solicitude, and deepen into anxiety, which are feelings of uneasiness, the first removes from comfort ; and thence pass to an emotion of fear, and the anguish of the passion of terror. All these stages can be seen, for example, in the man who is foolish enough to have his whole fortune, say an ample one, in the keeping of one bank. While he believes firmly in the bank’s solvency, he lives in comfort ; but a breath of rumour makes him solicitous ; a second makes him anxious, a third makes him afraid and resolve to act at once ; and now comes the terror that he may be too late.

Rushing to the bank he finds his worst fears realized in a run upon it. He cannot even get near the office door the first day, much less get in. The closing hour approaches, the doors are shut; he anxiously discusses the probabilities with others; goes home to eat no dinner, to pass a sleepless night of torture, waiting for the morrow to rush again to the bank in the hope that there is yet a chance. When the hour of opening approaches, or long before it, he is at the door, only to find the notice of suspended payment affixed before his arrival.

The feeling of anxiety or emotion of fear may be an incentive to action, often the most opportune. The realization of the danger and fear of the consequences make the man or woman of quick judgment do the right thing for safety. On the other hand, the passion of terror may be—especially with timid natures—absolutely paralysing to action. This is largely physical, and can only be conquered by a tremendous effort of will.

Obstupui, steteruntque comæ, et vox faucibus hæsit (*Æneid* II., 724), can be literally true, the contraction of the scalp from fear causing the hair to rise, and the sudden drying away of all moisture from the mouth causing the tongue to cleave to its roof.

This last I experienced once in my younger days upon standing up to preach my first extempore sermon. Fortunately my terror was concealed, and words were forced deliberately by a strong effort of will, and the sermon was a success, though repeated word by word from memory without a note. But the danger of such an effort was apparent, and that way of preaching from memory not attempted again.

A case known to me of another clergyman was not

so fortunate. When in a large church he stood up to preach his first sermon, and naturally raising his eyes saw himself, from "garret to basement," surrounded by a sea of faces; such terror seized him that he could not articulate a word. He hesitated a moment, then turned and fled from the pulpit and church, and nothing could ever induce him to attempt to preach again. He retained his orders, but became a schoolmaster.

Terror continued for hours may have lasting physical effects upon the body. We all remember the opening lines of Byron's *Prisoner of Chillon*:

"My hair is grey but not with years,
Nor grew it white
In a single night,
As men's have grown from sudden fears."

The fact that terror can thus, in some instances, whiten the hair is well authenticated. So a violent shock of fright has, in some cases, deprived the person of reason.

See the operation of fear in another way, noticed by Mr. Lecky in his *History of European Morals*, Vol. II., p. 4. He says, "Experience has abundantly shown that men who are wholly insensible to the beauty and dignity of virtue, can be convulsed by the fear of judgment, can be even awakened to such a genuine remorse for sin, as to reverse the current of their dispositions, detach them from the most inveterate habits, and renew the whole tenor of their lives."

Uncertainty as to what the object of fear is, heightens the terror to a great extent as everyone knows. In the *Book of Job* we read (iv., 12-18):

"Now a thing was secretly brought to me,
 And mine ear received a little thereof.
 In thoughts from the visions of the night,
 When deep sleep falleth on men,
 Fear came upon me, and trembling
 Which made all my bones to shake;
 Then a spirit passed before my face;
 The hair of my flesh stood up:
 It stood still, but I could not discern the form thereof.
 An image was before mine eyes—
 Silence—and I heard a voice—
 'Shall mortal man be more just than God?
 Shall a man be more pure than his Maker?'"

We might expect a poet like Milton not to be unmindful of what would produce the passion of fear, terror; and so, writing of Death in his second book, he says:

"The other shape,
 If shape it might be called that shape had none
 Distinguishable in member, joint, or limb,
 Or substance might be called that shadow seemed,
 Nor each seemed either; black he stood as night;
 Fierce as ten furies; terrible as Hell;
 And shook a deadly dart. What seemed his head
 The likeness of a kingly crown had on."

On the other hand where there is no uncertainty, but the most horrible reality, the strongest passion of fear may be experienced, as, for example, being enveloped in the folds of a python; being pinioned to the earth in a railway accident, and helpless, while the fire from the burning débris approaches; being able to get the head only out of the port-hole of an iron ship, while the fire or water approaches, which has cut off escape by the ordinary way; or being at the upper window of a burning house with no possibility of rescue. These awful realities that have happened to some of our unfortunate brothers or

sisters in humanity, make us shudder while reading or speaking of them, and like the hero of Virgil, *Horresco referens*.

Lastly, upon the subject of fear, it will be well for us all to remember the advice of the wise Sir Thomas More : —

“ If evils come not, then our fears are vain ;
And if they do, fear but augments the pain.”

CHAPTER XI.

ANGER.

ANGER is a feeling that cannot be passed over in any work dealing with the feelings and passions, though it often has been. It is caused by injury or attempted injury, or opposition to some desire of the individual.

It may be said at once that the feeling is not *per se* a sin, inasmuch as it may be caused by the highest of altruistic motives, a desire to protect others, or by seeing wrong-doing in others. Fuller calls anger "one of the sinews of the soul"; while St. Paul gives us the useful ethical injunction: "Be ye angry, and sin not;" and in the conclusion of the passage shows his deep knowledge of human nature by pointing out how anger may degenerate into sin: "Let not the sun go down upon your wrath, neither give place to the devil." Upon one occasion it is recorded of our Lord that "He looked round about on them with anger, being grieved for the hardness of their hearts;" because if on the Sabbath day He should cure the man's withered hand, they would accuse Him as a breaker of the Commandments.

From its origin, it will be manifest that anger is founded upon desire. When resulting from injury, it is caused by the desire to protect ourselves or others; while in the definition of its cause, opposition

to some desire of the individual speaks for itself. It is, of course, a painful feeling. This becomes apparent at once by noticing the contrary, that no man can be said to be happy while he is either annoyed, or furious with anger.

Like the other feelings it can begin from a slight feeling, and pass through an emotion to a passion, akin—in this case—to actual madness. We have the feeling of vexation, annoyance, or irritation; the emotion of anger and wrath, and the passion of fury and rage.

The degree manifested will be dependent upon two things, the provoking cause, and the then state of the individual; consequently it may be only annoyance, or in a moment, rage or fury may be exhibited, called sudden anger. When the subject of the feeling is in a normal condition, the exciting cause may only annoy or vex; as a mother annoyed with a daughter who has carelessly mislaid an article; or it may beget a sudden spring from calmness to rage, as in the case of a man quietly walking with his wife, when she is, without provocation, grossly insulted.

On the other hand, when the subject is not in a normal condition, a thing lightly regarded at ordinary times will provoke to anger. Irritability, as is well known, is often a symptom of the incubation of some disease, when a person of equable temper ordinarily, astonishes himself and others, and provokes rebuke by too seriously regarding trifles. When one is unconsciously to himself suffering from slight irritation of the brain from over-work, worry, or an accident, one constantly gets annoyed at small things.

Again, we are all familiar with the temper produced by gout in an elderly great toe. One has only to carelessly knock against it if one wishes to see the result of an interesting experiment in the laws of forces. The same great toe, if well, and slightly knocked against when quietly reposing on a chair, would not wake even its owner's vexation.

The probability is, that the foundation of anger within us is instinctive in the desire for self-preservation. All animals have this desire in common with man, as we have already seen, from the sea-anemone, which withdraws when touched roughly, to the elephant charging a sportsman. Consequently when we are injured our desire is opposed; what may be called the brute desire for our own is interfered with, and the brute instinct of defence is awakened. The result is an instant tension of the nervous system, wisely so arranged by Providence to give warning to others of danger. The deck is cleared for action by some animals like the horse, laying back his ears—which also helps to protect them—or the cat laying its ears back, showing its teeth, arching its back, expanding the fur of its tail and spitting forth warning, defiance and rage; or the dog by showing his teeth and growling, while the hair bristles on his back.

Though I have read most writers for and against evolution, as Darwin, Huxley, Spencer, Bree, etc., and have noted that the first chapter of the book of Genesis gives the order of creation in the succession that might have been expected, marking the transition from vegetable to animal life by the words: "Let the waters bring forth abundantly the moving creature that hath life;" yet my view of

the subject is, an open mind; that more convincing proof is wanting than we have yet had.

That man in anger or fight, then, should clench his teeth, and draw back his lips, as Kinglake says the Russian soldiers did in hand to hand fighting in the Crimea, does not seem to me any confirmation of our reputed simian ancestry, for human beings draw back their lips and expose their teeth in laughter, while the threatening ape or monkey does not clench his teeth, but open his mouth and display them, as the old leader of the troop in Gibraltar once did to me in a lonely part of the Rock. Further, the ape in attack at close quarters will use his teeth first, while man as a rule uses his last, and except when done brutally to disfigure, only after hands and feet are no longer available.

That anger, then, should be the outward and visible sign of the brute instinct in us for self-preservation would seem to account for its existence; while the evil that is naturally in us all is quite enough to account for its worst manifestations. This too, helps to explain why it is so difficult to conquer. We have all read the Proverbs of Solomon, that "He that is slow to anger is better than the mighty;" and that "He that is slow to anger appeaseth strife." We know that "slow to anger" is given as one of the attributes of the Deity, and that St. James gives the wise ethical rule, "Let every man be swift to hear, slow to speak, slow to wrath;" but we know that it is not easy to follow this advice. We know further, that in polite society, or in argument, the man that keeps his temper will get the better of his opponent; and that Marcus Antoninus tells us that if our friend cut us on the street, when we are

courteous to him, to think that our manners are better than his, and trouble no more about it, but it is not always easy. The deep foundation appears to explain why.

As we are not discussing ethics, this is not the place to write of the danger of anger, but this much may be said—if uncontrolled it is very apt to become dangerous; as the more it is yielded to the more violent it will be. As to appearances, a man in a fury of passion is not a pleasant sight, and if Lord Chesterfield rightly told his son that a man with distended cheeks and protruding eyes, resulting while playing a musical instrument, did not look his best; so if many a man when raging like a maniac could see himself in a mirror he would find he was not looking his best; but who that valued the mirror would venture to hold it before him?

“ With fiery eyes and with contracted brows,
He coined his face in the severest stamp,
And fury shook his fabric like an earthquake.
He heaved for vent, and burst like bellowing Etna :
It sounds scarce human.”

Lastly, the Stoics held and rightly, that the sins of anger were not morally as culpable as those of licentiousness, inasmuch as the last were done deliberately for the gratification of evil desires.

CHAPTER XII.

ENVY.

“ Envy, to which the ignoble mind’s a slave,
Is emulation in the learned or brave.”*

CLOSELY connected with the feeling of anger is envy. This is a feeling of pain caused by seeing another possessing what we would like for ourselves. It is then, of course, founded directly upon desire, and if indulged will unquestionably urge us on ‘to its natural successive steps as given in the Litany: “hatred and malice.” The feeling is as old as humanity, was the direct cause of the murder of Abel, and the crime, worse to the perpetrators than murder, of the selling of Joseph into slavery.

As it is founded upon selfish desire, often of the worst kind, there is not much that the envious man will not do if this degrading passion has him in possession. Livy in his thirty-fifth book of the History of Rome, section 43, tells us that some are particularly liable to this wretched vice. He says, “There are no dispositions more prone to envy than those of persons whose mental qualifications are inferior to their birth and rank in life. Such always harbour an antipathy to merit, as a treasure in which they cannot share.”

That fascinating writer of antiquity, Tacitus, speaks of it, too, in his life of his father-in-law,

* Essay on Man, Ep. II., Pope.

Agricola. He says, "The ancient custom of transmitting to posterity the actions and manners of famous men has not been neglected even by the present age, though it be incurious about those belonging to it, whenever any exalted and noble degree of virtue has triumphed over that false estimation of merit, and that envy of it, by which small and great states are equally infested."

Joined to that very general feeling among humanity, the love of power, it is envy largely that causes a republic to be so unstable a form of government as compared with a monarchy.

"The General's disdained

By him one step below ; he by the next ;
That next by him beneath ; so every step,
Examined by the first pace that is sick
Of his superior, grows to an envious fever
Of pale and bloodless emulation."*

If humanity were perfect, or all the members of a nation were, a republic would be the ideal government in that nation ; but while humanity is not perfect, of, say any twenty men who are equal in all respects, if the post of president is vacant, each one will be apt to think himself as well fitted for it as the nineteen others. Each one, then, wanting it, they will find it hard to agree upon who shall have it. But this difficulty is got over by a short presidential term, for if it were for life it would be insuperable, unless one like Cromwell or Napoleon the First could so manage as to get power enough to coerce the others.

But in a monarchy this difficulty cannot arise. For if there is one who has the highest birth, that is, is the son of a king and queen, the others, whose

* Troilus and Cressida, Act I., 3.

envy of each other will not let them agree upon one of themselves, will all agree upon the royal son. In England, consequently, no man could be envious of the eldest son of the Sovereign, except one of his brothers; and he must acknowledge the right of the eldest born, and remain quiescent as long as the eldest is in all respects worthy.

But in a republic, it may happen that there are hundreds or even thousands who may be the superiors of the president in wealth, and his equals in education and abilities, consequently in small republics, as in Central and South America, we find frequent revolutions. Even in the large ones, when they are older, the birth question will inevitably come to the front by the president becoming emperor and wanting his son to succeed him, as in ancient Rome. With Cromwell and the first Napoleon, what did their action actually come to in the end? Simply to be king themselves under another name, and found a dynasty of their own. Charles the First was beheaded, Cromwell succeeded, and when he died bequeathed the kingdom to his son. Then the country realized the position, and said in effect, If we are to have a king, let him at least be a genuine king and not a sham one.

Napoleon called himself First Consul, but divorced Josephine to have a son to succeed him. In short, Louis the 16th lost his head that—in effect—a new Corsican dynasty should be founded. Thus we see the depth of thought in Plato, who has left us his infallible cycle of rule in humanity, of monarchy; second, republic; third, democracy; fourth, military despotism; to which he might have added, fifth, the monarchy to be attempted afresh, by the deter-

mination of the military dictator to leave the power to his son, so that it may remain in his own family.

One would think that by this time the eyes of nations would be opened to see, but *populus vult decipi* is as true as it ever was; and so a man like Cromwell, because he calls himself protector and not king, can, amid the plaudits of the multitude, decapitate a hereditary monarch of gentle disposition and reign himself as a despot, as Napoleon afterwards did.

Such, then, is the envy of human nature coupled with the love of power, that of Plato's cycle the monarchy must inevitably be the longest to continue, so long as the sovereign rules well and the people have a large amount of freedom and happiness resulting from the constitution resting upon the four pillars of good government, religion, council, justice and treasure. It is worth recording here that Zeno and his school held "that the best of political constitutions is a mixed one, combined of democracy, kingly power and aristocracy." (Dio. Laert. Zeno).

The troubles of the United States were not buried with the civil war. There is the larger trouble of Plato's cycle beginning to rise upon the horizon like a threatening cloud. They threw off the monarchy at the revolution to have the ideal government of a republic. One hundred years have passed, and already at each presidential election the fight is between republicans and democrats. The democrats will in time succeed, must succeed, because first, the wealthier and better classes as a rule keep away from politics, and leave them to men who take up the profession for a living. The consequence is

that unscrupulous men can get into place and power ; and which do such men prefer, self or country ? Avowedly country, but really self.

With this compare an enormously wealthy English noble, who is giving his life to politics. Which is first with him, self or country ? Country must be, because he already has everything he wants for himself, and therefore his highest reward is the confidence of his sovereign and fellow countrymen. Thus deservedly among the very worthiest of mankind must be placed the highest of our nobility, who are working solely for the good of their fellow men in any way. The wealthy commoner working for the same cause, may not be quite so disinterested, as he may have the perfectly laudable and proper ambition of wanting a title to found a family. But the nobles have this already. As far as I am aware, though there may be individual instances, the United States have no such disinterested class in politics. "Again, the Stoics, as for instance Chrysippus in the first book of his work on Lives, say that the wise man will take a part in the affairs of the State if nothing hinder him. For he will restrain vice and excite men to virtue." (Dio. Laert. Zeno).

Secondly, the institutions of the United States would appear to be too democratic for a conservative republic. In this way, unconsciously to the people, they further the cause of democracy.

Thirdly, a new feature is springing up in this land where all men are said to be equal. This is the question of birth. Just as in Rome the patrician scorned the varlet commoner, so in the modern republic the patricians have already formed a class, said to be just as exclusive as any circle in England.

Here then, when the military despotism has suc-

ceeded to the democracy, the man of the period or some successor will find, as in ancient Rome, the materials ready to his hand to acknowledge by right of birth the son as successor to the father.

It need scarcely be observed in passing, that this exclusive patrician feeling is not only seen but strengthened by the alliances between Americans and the European nobility. Perhaps it is well, however, that all persons do not see the anomaly of their position. Noble republicans are as much a contradiction in terms as a radical lord, or a radical establishment clergyman; for if the radicals ever get the upper hand, the first clean sweep would be the clergy and the aristocracy.

One need be no prophet, then, to foretell the future of the great republic, unless it will in all respects become and continue a real republic, rather than one in name. It would then last longer as a republic; but it may be already too late for that, unless the changes were introduced very gradually and slowly; for the democrats have too much power to permit it. We who read will not be here to see, but as human nature does not change, it will come; democracy, civil war, military despotism, and emperors. It will take time, but certainly not so long in these modern days as in the life of Rome. But enough for envy and its effects upon humanity, except Bacon's apposite words, "Lastly, near kinsfolks and fellows in office, and those that are bred together, are more apt to envy their equals when they are raised; for it doth upbraid unto them their own fortunes, and pointeth at them, and cometh oftener into their remembrance, and incurreth likewise more into the note of others; and envy ever redoubleth from speech or fame."

CHAPTER XIII.

HATRED.

HATRED is a feeling of the mind which makes another appear odious and detestable to us. It naturally comes under the division of the painful feelings, and the word is used for the emotion; while dislike expresses the feeling, and abhor, or detest, the passion. It may be produced by the presence of the hated one, or by something recalling him to memory. It is directly or indirectly connected with desire, and may arise from several causes. When it springs from envy it is naturally connected directly with desire. Our envy of another, by obtaining a resting place in our minds, has begotten hatred towards him, because he has what we want.

Again, it may arise from causes which are not under our control, being congenital. There can be no question that some likes and dislikes are inherited. I knew a man perforce a vegetarian, because before he was born his mother in a hotel during hot weather turned over a cold fillet of veal to cut from the under side. It was swarming with maggots. She became sick and left the table. When the child was born and old enough to eat meat, nothing could make him touch it; and so he continued.

My observation from authentic cases has led me

to the conclusion also that sea-sickness or immunity from it is inherited; and besides the case given above, there have been numerous instances of women frightened by blacks, or idiots, or serpents, or animals, who, as well as others, have noticed a hereditary antipathy in the child born after the fright, which existed in no other children of the same family.

But irrespective of these congenital antipathies, education and environment form tastes that may continue through life. If, then, to take the extreme cases, we are compelled to live with one whose habits and tastes are disgusting to us, dislike as a feeling will soon pass to the emotion of hatred, or even the passion of detestation or abhorrence. Imagine a fastidious man compelled to live with one not cleanly in his habits. Life would become intolerable, and as *de gustibus non est disputandum* must be our rule for a quiet life with others; nothing would remain but an absolute separation of quarters, so distant as to prevent intercourse.

It is on account of tastes resulting from individual education and environment, that instant personal antipathy may arise. A smug face, an unctuous manner, long oily hair, peculiar habits of dress, or of eating, etc., make some persons never want to meet the abhorrent individual again; and it is to some natures one of the most painful facts in their lives, that they are compelled by circumstances to have intercourse with men, who, by their abilities, have attained high positions, but whose habits and manner of life in private are hateful to them. They find it hard to preserve their feeling of respect for the clever politician, who, when dining with them at

a restaurant, orders tripe and onions; or for the great preacher, careless in his person, who eats his dinner as Boswell says Dr. Johnson did.

It is a fact on the other hand, that with some persons of low mental type, hatred to others may arise from their irreproachable life, more easily than if there was something reprehensible in it. This is as old as human nature, as seen in Cain and Abel. "Wherefore slew he him? Because his own works were evil, and his brother's righteous." Speaking of His enemies our Lord said: "They hated Me without a cause," while we all remember Shylock's,

"How like a fawning publican he looks!
I hate him for he is a Christian,
But more for that in low simplicity,
He lends out money gratis, and brings down
The rate of usance here with us in Venice." (I., 3).

This did not escape that master in the study of the workings of the human mind, Machiavelli; as he says in *The Prince*, "We may here remark that hatred is as easily incurred by good actions as by evil." Unfortunately hatred begotten in this way is always manifested in a strong form. Tacitus in his *Annals* (I., 33) speaking of the enemies of Germanicus says, "The hatred with which they pursued him was unjust, and for that reason unrelenting;" and every one with a varied experience of life knows that the persecutions of unjust hatred are never satisfied. By being allowed a lodgment in the mind, it has easily passed into malice, the desire to injure, and that is something which waits only for opportunity.

If there are obligations due to the hated one, so much the worse for him. Tacitus, also a deep

student of human nature, says of this (Annals IV., 18), "Obligations—such is the nature of the human mind—are only acknowledged when it is in our power to requite them. If they exceed all measure to be insolvent is painful, and gratitude gives way to hatred."

Alas, how necessary for human nature is that wonderful chapter, the thirteenth of St. Paul's first letter to the Christians of Corinth said by the gifted author of *Friends in Council* to contain the most beautiful thoughts ever written in any language. "Charity never faileth, but whether there be prophecies, they shall fail; whether there be tongues, they shall cease; whether there be knowledge, it shall vanish away."

Needless to add, hatred may begin in a feeling, pass by retention into an emotion, and thence develop into a passion, and terminate in murder. Of this, instances are only too common in all countries and in all times. The feelings of ignorant people may be excited to race hatred, or hatred of principles, and then murder may result upon individuals innocent in themselves, but believed to be the embodiment of the principles; as witness the murders of late years in Ireland, and of sovereigns or rulers by anarchists.

Like fire, hatred may be a good servant, but it is a dangerous master.

CHAPTER XIV.

GRIEF AND DESPAIR.

GRIEF is a feeling of mental pain, resulting from injury or loss, or other causes, like sympathy, error, etc. We have it in all its stages, from a feeling of sadness, to the emotion of grief or sorrow, and the passion of grief.

Referring to the sadness or grief caused by sympathy, it may be observed that although there is much that is sensible and beautiful in the Stoic philosophy as expounded by Epictetus and his delightful pupil, Marcus Antoninus; yet it must be plain to every Christian reader, that their teaching, not to be moved by the joys and sorrows of others because they do not affect them, is far below that of St. Paul, who wrote, "Rejoice with them that do rejoice, and weep with them that weep." Whatever the feeling engendered in one's self by indifference to one's own pleasures and pains, indifference to those of others can beget in us only a feeling of selfishness, consequently it must be bad. It is absolutely opposed to the principle of love, and so of altruism expressed again by St. Paul's words when he says, "Bear ye one another's burdens, and so fulfil the law of Christ." It is opposed, too, to that old thought which appears to have been spread affirmatively or negatively over the whole of the ancient civilized

world, from the Chinese Classics and the Vedas, to the Talmud and the Gospels, and the writings of these very Stoic philosophers, "Do unto others as ye would they should do unto you."

Sorrow and grief are founded upon desire, as, though there may be grief on account of personal injury, yet the passion of intense grief is always caused by deprivation. A lady who would shed but few tears when the physician informs her that there is no possibility of prolonging her life, will almost go mad in early life at the sudden death of her husband.

I remember seeing once upon the stage a young heroine lamenting the death of her husband, just killed. She was in all respects dressed faultlessly for afternoon tea at home. Had she ever seen a lady in the wild *abandon* of the passion of grief, she would have seen her in a dressing gown; her hair hanging about her shoulders; uttering short piteous exclamations; her eyes dry and staring; alternately pacing up and down the room, and throwing herself beside the body of her husband.

With another disposition, she would have seen the same dress and *abandon*, but sitting as one stupefied, as described so beautifully by Tennyson in the well-known lines,

" Home they brought her warrior dead,
She nor swooned nor uttered cry;
All her maidens watching said,
She must weep or she will die.

" Then they praised him soft and low,
Called him worthy to be loved;
Truest friend and noblest foe,
Yet she neither spoke nor moved.

“ Stole a maiden from her place,
 Lightly to the warrior stept,
 Took the face cloth from the face,
 Yet she neither moved nor wept.

“ Rose a nurse of ninety years,
 Set his child upon her knee ;
 Like summer tempest came her tears—
 ‘ Sweet, my child, I’ll live for thee.’ ”

But these paroxysms of grief are not often seen, for as a rule extreme grief can endure to see no one till the first stages have passed away. The most beautiful writer of poetry of our day has depicted this in *In Memoriam* :—

“ For by the hearth the children sit
 Cold in the atmosphere of death ;
 And scarce endure to draw the breath,
 Or like to noiseless phantoms flit.

“ But open converse is there none,
 So much the vital spirits sink,
 To see the vacant chair and think ;
 ‘ How good ! how kind ! ’ and he is gone.”

It is one of the strangest problems of life, that one who is in all respects lovable may have to bear a succession of heart-breaking losses, as of husband, son, kingdom, or country, to spend the rest of life in solitude ; while another, not so lovable, has through all her life everything that heart can desire, and never meets with the loss of husband or child.

Despair is the complete loss of hope. Naturally desire is at its foundation, for the loss of hope means, that whatever our desires have been, no matter how extended or limited, we cannot now expect to have any of them realized. It is, of course, a pain, and to such an extent that it leads to the desire of death,

or even directly to suicide; for the grief of despair is the most irremediable.

“ Thus with the year
Seasons return, but not to me returns
Day, or the sweet approach of even or morn,
Or sight of vernal bloom or summer's rose,
Or flocks, or herds, or human face divine ;
But cloud instead and ever during dark
Surrounds me, from the cheerful ways of men
Cut off, and for the book of knowledge fair,
Presented with a universal blank
Of nature's works to me expunged and rased,
And wisdom at one entrance quite shut out.”*

It is sometimes caused by no fault of our own. The Book of Job is a very good example of the evils that can come upon one, when misfortune after misfortune spring from sources not under his control, until everything is gone, and the work of a lifetime lost with all its present enjoyment of happiness, and hopes of it from the future. Such, too, are cases of bankruptcy, resulting from frauds of bank directors or company promoters; when a wealthy man with all that heart can desire suddenly finds himself and—what is of much more consequence—his wife and children plunged into destitution. Despair here is plainly a mistake, and the strong man or woman will not give way to it. Work may be begun again in a humble way, and if enough years of life are left a moderate success may come again. When the man is too infirm or old, cases are numerous where the sons and daughters have thrown aside all feelings of false modesty, put their shoulders to the wheel, each in their own way, and by their united efforts have supported their parents in comfort during their

* Paradise Lost. Bk. III.

declining years. Adversity so far from ruining them, has, to their own surprise, developed powers for good that were latent in them all, and might never have been awakened but for the adversity.

So many have written upon questions like this, for example, Jeremy Taylor, Burke, Jeremy Collier, etc., that it seems superfluous to mention them; but the older writers who have considered it have always a certain charm or fascination. Here, then, is what Polybius says of attacking difficulties, "It would be easy to show by instances that many things which appear in the beginning to be not only difficult but absolutely impracticable, are, in the course of time, and by continued use, accomplished with the greatest ease." Hear, too, what that grand old Stoic Epic-tetus, who was so indifferent to fame that he did not write, but taught orally, says, "It is difficulties which show what men are. Therefore when a difficulty falls upon you remember that God, like a trainer of wrestlers, has matched you with a rough young man. For what purpose? you may say. Why that you may become an Olympic conqueror, but it is not accomplished without sweat." (Book I., 24).

Old Dr. Johnson in his Rambler (I., 32) has a word also on the subject of encountering difficulties, which since Boswell quoted it, has become famous. "I think there is some reason for questioning whether the body and mind are not so proportioned, that the one can bear all that can be inflicted on the other. Whether virtue cannot stand its ground as long as life, and whether a soul well principled will not be separated sooner than subdued."

It is a much more serious case, however, when

despair is threatened as a result of one's own doings, either accidentally or deliberately; for here one has not the consolation of blaming another, but must confess it was his own fault. Accidentally, however, is much less serious again than deliberately; for people will condone accidents much more readily than deliberation, as the law rightly does.

Threatened despair, then, from one's own accidental misdoing ought never come, for no matter what the result, hope is not gone. The hope remains that people will excuse, and we have seen that despair is the absence of hope. Cowper wrote wisely,

“Beware of desperate steps, the darkest day,
Live till to-morrow, will have passed away.”

In old Dr. Syntax, too (Canto XXVI.), we have a good common sense version of the position:

“That man I trow is doubly curst,
Who of the best doth make the worst.
And he I'm sure is doubly blest,
Who of the worst can make the best.
To sit and sorrow and complain,
Is adding folly to our pain.

“In adverse state there is no vice
More mischievous than cowardice;
'Tis by resistance that we claim
The Christian's venerable name.
If you resist him, e'en old Nick
Gives up his meditated trick.
Fortune contemns the whining slave
And loves to smile upon the brave.”

Indeed there is no position we may be placed in during life where one need give way absolutely to despair, and take the coward's way—suicide—of leaving everything. Even in the worst position possible, that of the condemned murderer, whose hope

of reprieve is gone, and day of execution fixed; though there is no more hope for this world, the consolations of religion remain by giving him hope of the next. With this, by a sincere repentance he can sustain himself to the last, trusting that as he has paid the highest penalty for the greatest crime, and by repentance acknowledged the sentence just and deserved, he may meet with mercy from a tribunal so high as to be above all considerations of human expediency and human needs.

CHAPTER XV.

THE BEAUTIFUL.

AMONG the feelings which are pleased and may be very highly so by gratification, we find those which come under the heading of the beautiful and the sublime, and are called æsthetic. This word is derived as the reader knows from the Greek verb *αἰσθάνομαι*, to perceive by the senses. From this we get *αἴσθησις*, a perception, and *αἰσθητικός*, perceptive, whence æsthetic.

It is like the others founded upon desire, inasmuch as it seeks gratification, and thence pleasure. This can be seen at once from the opposition of the sexes, by admiration, showing that it is what may be called a fundamental feeling of our nature, as it exists in savages, who otherwise have little notion of the beautiful. Eve's address to Adam in *Paradise Lost* is familiar to us all:

“What could I do
But follow straight, invisibly thus led,
Till I espied thee fair indeed, and tall,
Under a plane tree.”

Very early in the history of our race it is written, “That the sons of God saw the daughters of men that they were fair,” and everyone's own experience has taught him that he needed no teacher to point out female beauty. Like the other feelings, too, that of the beautiful may become an emotion or a passion.

Often we find the words beautiful and sublime in their wrong order. Burke, for example, wrote a book familiar to most readers, on the Sublime and Beautiful, in which he discusses the sublime first, and next the beautiful. It will appear, however, as we go on, that the beautiful ought to come first, inasmuch as it precedes, and is also contained in the sublime, which would not be complete sublimity without it.

The beautiful may be described as a unity, a pleasing whole made up of pleasing parts; and although the word æsthetic from its derivation implies a perception through the sense of feeling; yet by taking the word in a second intention, we generally confine the perception of the beautiful to the sense of sight. It has, however, been defined as that which is pleasing to any sense, but we can see directly that such a definition is inaccurate. No educated man would care to say a thing tasted or smelt beautiful; and though polished marble or silver is very pleasant to the touch, it is evident at once that we do not get our ideas of their beauty from what they feel like. Feeling veined or coloured marble would not make us realise its beauty, as it would feel exactly like a piece of highly polished sub-carboniferous limestone; while feeling beautifully embossed silver would not give us even a pleasant sensation.

Concerning musical sounds (hearing), the word is almost as appropriate as for sight, perhaps because we have not a more expressive one; for to many, lovely music suggests beautiful visions; or it may be unconsciously founded on the close relationship subsisting between the seven primary colours, and

the seven primary sounds. But when we think of the sense of sight, the very mention of the beautiful suggests a notion of something that is lovely.

It has been said that the beautiful may be either what is beautiful for itself only, or what is beautiful associated with utility. If we think of it, however, we shall find that nothing is beautiful in nature or in art—always at its best when it copies nature most accurately—which is beautiful only in itself.

Take art. A beautiful ornament—say of Dresden china—made only for show, has its use in giving pleasure to the eye, and in helping to beautify a room; while when we turn to nature, we always find beauty associated with utility.* The lovely, smooth waterfall, or broken cascade, has its use in the economy of nature in assisting the equilibrium of the waters of the earth. Darwin and other writers on nature and natural history have pointed out that every delicate tint on flower or bird, or colour on animal, has its use in nature; and though Gray says in the hackneyed verse of his beautiful *Elegy*:

* “ Full many a gem of purest ray serene,
The dark unfathomed caves of ocean bear;
Full many a flower is born to blush unseen,
And waste its sweetness on the desert air,”

yet this is only the ordinary law of nature. They serve their original purpose till man discovers them, when they may serve many other purposes. Rivers flowed, vegetation and animals came and went for ages in the world before man appeared, but all served their purpose.

* Ruskin says the two most beautiful things in nature are the most useless, as the peacock and the lily; an astonishing statement, apart from food, to the lovers of the beautiful.

As a beautiful nature, then, can be just as useful and more so to itself and to man than an unlovely one, we could not imagine an all-wise Deity creating an ugly world, of ugly matter. Everything that nature does therefore, when building up, is beautiful. What can excel the beauty of a double rainbow on a showery April day, "which," as Shakespeare says, in its "uncertain glory"

"Now shows all the beauty of the sun,
And by and bye a cloud takes all away."

Every lover of the country knows the beauty of "the pathless woods." Poets in all languages have sung of it; the delights of "the solitude where none intrudes"; of the "boundless contiguity of shade" so familiar to all; while the words of one of our songsters, Mr. F. Warner, so well express this feeling as to be worth quoting in extenso.

In dem Walde 's ist so schön,
Nach dem Walde möcht ich ziehen;
Wenn die Maien-lüfte weh'n,
Und die Blumen wieder blühen;
Und der helle Sonnenschein
- Durch die Blätter lacht herein.
O wie lieblich in dem Wald
Durch den stillen Tag zu träumen;
O wie süß mein Lied erschallt,
In den weiten grünen Räumen,
Und die lieben Vögelein
Stimmen leise mit mir ein.
O schöner, schöner Wald!
Wie ist mir hier so wohl!
Wie hier so sorgenfrei
Das Leben ist!
Freude und Lebenslust,
Füllt mir die leichte Brust;
O schöner, schöner Wald;
Sei mir gegrüßt!

See the wonderful beauty in the trunk, branches, and leaves of a tree when allowed room to develop; and the perfect shape of all for strength and occupation of space. Note again how in time nature contrives to get rid of the dead branch, and then attempts to cover up the unsightly scar; just as when the hand of man lays bare the rocky side of a quarry, in time nature again covers up the wound with grass, moss, or heather.

For motion observe the graceful waving of the trees, grasses, and corn in the wind, these last in their changing lights reminding one of the ocean; the beautiful curves in the flight or soaring of birds, in the flowing of the waves of the sea, or in the ripple of the babbling brook. See the unconscious beauty in the graceful gestures of most animals when at play, and how nature assists in making man's actions beautiful by giving the curve of the parabola to the discharged arrow, or the concentric circles to the disturbed pool. All nature is beautiful and useful.

If we turn from the lovely landscape to the face of a beautiful woman, there is a great pleasure in gazing upon it; but this is largely derived from the fact that the face is taken to be an index of the soul. We expect a beautiful face then to be the outward sign of gentleness, grace, and goodness; that is, utility; and when in daily intercourse we find it not to be the expression of these, but a mask for deceit or even vice, the pleasure of looking upon it is gone.

So it is with the pleasure we get from contemplating the beautiful in the works of man. In architecture for example, a beautifully made bridge with its solid buttresses and graceful arches, answers

its purpose just as well as an ugly one would ; while to look at it is a pleasure. The Tuscan and Doric pillars and capitals have a solid beauty of their own, which is more gracefully expressed in the Corinthian and Composite orders ; but the beauty of all is heightened by their evident use in supporting porch and roof.

It is, further, the same with the trades. The wrought iron gates, and handsome hinges and knobs of the church door, have their beauty enhanced by their utility ; while gold and silver articles are only excusable in wear when their utility is manifest, as in a watch-chain or for ornament as on the arm. Taste, however, compels this last use to be strictly curtailed, lest it cross the line that separates it from vulgar display.

The feeling of the beautiful is, of course, in different strength in different individuals. In the artistic temperament it is naturally strong, but in all it may be very largely cultivated. It is, however, open to very grave questions how far paintings from personal toilet customs for example, tend to encourage a love of the beautiful among working people. Any one may form an opinion of this for themselves, by noticing the language of working lads and girls in the National Art Gallery when before a picture of this nature. I remember seeing two maid servants, one of whom when standing before a small masterpiece, entitled " The Bath," called to the other, " O, Maria, I s'y, look at that woman with only a chemise on." Maria looked and both went into a shout of laughter. The beauty of the picture was not understood, for the subject prevented it.

If I remember right, when Boswell excused some unpleasant description because it was true to life, Dr. Johnson replied, that truth did not excuse it, because some things ought never to be described at all. So, though the lady described by Maria's friend is beautifully painted, yet no woman looks her best when attired as described; and as the female form divine at its best may be painted in any number of poses, if beauty is to be taught to the *profanum vulgus*, why not give them something beautiful and well painted to gaze upon?

Whatever may be the opinions of others, I find it quite impossible to agree with Burke that proportion is not a cause of beauty in vegetables, animals and human beings. To my thinking it is one of the principal causes of beauty.

We have all seen men and women three and a half feet in height, with the head of the full-sized adult, joined to the body of a child. Could anyone call the figure beautiful when divested of clothing? Or, take again a full-sized body upon very short legs; place the man nude with his back to you beside the nude figure of a man six feet in height, perfectly made and proportioned. The one figure would disgust like a Satyr, the other compel admiration like an Adonis or an Apollo.

So a perfectly made St. Bernard or mastiff is just as beautiful as an Italian greyhound, but it is a different style of beauty. Beauty is however, so dependent upon taste, that divergencies of opinion are bound to exist. Taste again is largely a matter of the school one has been educated in. Burke lived in a period when taste determined that no woman could be beautiful who did not appear delicate and

fragile. In our day delicacy and fragility are not admired so much, as we are more practical; and I venture to assert that the canon of taste which determines the perfectly proportioned beautiful woman, who exhibits the glow of perfect health to be beautiful, is a more correct one than that which made beauty consist in delicacy, accompanied with fragility. To the unthinking, delicacy and fragility may appear beautiful, but to the more thoughtful, the idea is marred by instant visions of rapid evanescence.

We are more natural too, in these days, and before a dinner party do not give our girls a good feed in private, that they may seem delicate by eating little in public. We vote the *élegant*, who broke off his engagement because he saw his *fiancée* eating cabbage—though we may not like it—an ass.

As we are more concerned here however, with the feeling excited in the mind by the beautiful, than with what constitutes beauty, enough has been said upon the subject.

CHAPTER XVI.

THE SUBLIME.

ALTHOUGH Burke had "no great opinion of a definition, the celebrated remedy for the cure of this disorder"—confusion of thought—it is not an easy matter to get on without them, for the very reason that he seemed to dislike them. At any rate, those who employ them are in ancient company, as "Phavorinus, says Pythagoras, employed definitions on account of the mathematical subjects to which he applied himself. And that Socrates and those who were his pupils did so still more; and that they were subsequently followed in this by Aristotle and the Stoics."*

The specific value of a definition appears to be to give limits, so that the discussion may be narrowed down to the subject as much as possible.

The feeling of the sublime then, is that which is awakened in the mind by the contemplation of power or infinity, joined to grandeur, majesty, and beauty. It is more commonly an emotion than a mere feeling, though, of course, it may begin with this, and by longer contemplation pass into an emotion; while it is only in some natures found as a passion. Like the beautiful, it is founded upon desire, that great moving spring of all our feelings; for the feeling can be best satisfied by gratification,

*Dio Laert. Pythag.

as, for example, a man making a journey to see the Alps, Vesuvius, Niagara Falls, or the Yosemite Valley.

With reference to power, some have gone so far as to say that the emotion of the sublime may be excited by power in animals. We have however, only to join the adjective to the animal to see that this is overdrawn. One does not say the sublime power of the tiger, the lion, elephant or whale, while the adjectives great or astonishing are perfectly appropriate. The feeling excited by the strength of a Samson, a Goliath or a Sandow, is not one of sublimity, but of wonder.

This notion has probably arisen by associating with the sublime the feeling of fear, or the passion of terror. It would, however, appear to be a mistake to associate the passion of terror for one's safety with sublimity, because terror paralyses all other feelings but the desire of safety. No man flying for his life from an eruption of Vesuvius, for example, would have his mind occupied with thoughts of its sublimity. Even a Socrates, who could quietly drink the hemlock, or an Archimedes who asked for time to finish his demonstration, or a Newton or a Bacon would run first, and when safe, stop to admire the grand sublimity afterwards. For the emotion of sublimity to be excited, calm contemplation is necessary. The feeling becomes an emotion when the beauty, grandeur, majesty and power of the sublime are contemplated from a distance. It is true it is strengthened by the thought of one's helplessness—awe—if under the control of such a power; but this is a very different thing to being there.

To awaken the emotion of the sublime by power

in matter, we want it associated with volume, grandeur, and majesty, which all may be heightened by motion. Take an eruption like that of Krakatoa some years since. We have the pouring forth of dense volumes of smoke and flame, dust, steam and burning lava. The mountain and surrounding earth are trembling. The roar is deafening. The out-pouring and thunders of sounds may be seen and heard miles away. The quantity of dust exciting astonishment at the time, was such that for a year after it floated in the upper atmosphere, and affected the appearance of the sunsets within a known belt round the earth.

Here we have the eyes dazzled, the ears almost stunned by the magnitude of the explosions, the feeling of the solidity of the earth disturbed by tremors, and fissures, and the agitation of the sea in an immense tidal wave, and all combining to produce in one a feeling of the sublime.

Or, take another instance. One descends on the American side of the Horse Shoe Fall at Niagara, to the rocks which lie at a short distance from where the falling water strikes the boiling cauldron below. The fall, as one looks up, is some one hundred and sixty feet high, and three quarters of a mile wide. The beauty, as the sun is seen striking upon the rushing flood at different points, on the cloud of mist constantly rising from the tremendous impact of the falling water, and making ever varying and changing rainbows, is entrancing. The thunder of the waters is so great, that while not being painful, it drowns all other sounds. You shout your loudest, and only by the familiar sensation of voice in your throat are you conscious that you are doing so. You

see the waters boiling around you in a veritable Maelstrom, waves madly dashing against waves, now drawn again into the enormous depth, and anon escaping, and whirled away in eddies towards the calmer water that precedes the rapids. You think of the tons of water that are falling momentarily into the abyss, and as your mind partially realizes the magnitude of the whole, you feel your own littleness in the face of such a grand, majestic manifestation of nature's power, which has thundered on through the ages while thousands of generations have come and gone. Words fail you. You can only exclaim, It is tremendous! Majestic! Sublime! Beautiful! and from nature your thoughts fly involuntarily to nature's God.

"It would seem as if
God poured you from the hollow of His hand."

See, then, the combination we have had to make: sublimity; volume, grandeur, power, motion, beauty, sound as of continuous thunder; the combination causing in some such an emotion of the sublime as to move to tears. To the student of Scripture another picture is presented by the association of ideas. "And a voice came out of the throne, saying, 'Praise our God, all ye His servants, and ye that fear Him, both small and great.' And I heard as it were the voice of a great multitude and as the voice of many waters, and as the voice of mighty thundrings, saying, 'Alleluia, for the Lord God Omnipotent reigneth.' " The sublime in nature calls forth in St. John the sublime in description.

For the sublime in infinity we have only to take the sun, moon, and stars—the heavens.

In all ages the sun has been taken as the highest

single manifestation of the sublime in matter. No one who has thought of it, wonders that in so many ancient languages the word for the sun enters into that for the Deity. When the rapt apostle of the true religion wanted a sublime picture for his God, he wrote, "And His countenance was as the sun shineth in his strength." Thought by many nations to be the manifestation of the Deity, it was worshipped, and is yet. Age after age has come and gone, nation after nation of men upon the earth have risen, fought their way to greatness, and passed away, leaving scarcely a name behind them; worlds have appeared and disappeared, and still the sun has gone on "shining in his strength."

Again, let anyone at night look up into the dark, star bespangled vault of the heavens. The invention of the telescope made for us a certainty some of the speculations of the ancient thinkers, that the stars were worlds. Stronger telescopes were invented; nebulae said to be irresolvable were resolved into separate worlds; while others unseen before appeared. Certain motions in some planets begot the thought that the exciting cause might be another planet. A stronger telescope is brought to bear and it is found; and now what is the story of the latest and most powerful telescopes? That as it makes it possible to see further, it reveals an ever opening vista of fresh worlds; so that if it were possible for one to go on for ever, moving away from the sun in the infinite nothing in which the universe is placed, he would for ever pass new worlds unseen by him before. Like many other modern so-called discoveries, this is but a re-discovery. Epicurus taught that "The universe is infinite. For that which is

finite has an extreme, and that which has an extreme is looked at in relation to something else. Consequently that which has not an extreme has no boundary; and if it has no boundary, it must be infinite and not terminated by any limit. The universe then, is infinite both with reference to the quantity of bodies of which it is made up, and to the magnitude of the vacuum."*

The contemplation of such sublimity makes the observer turn upon himself with the question, What am I, a worm of this small earth? Whence came I? Whither do I tend?

The answer to this is the highest sublime of all—God, the combination of infinite power, with that which is involved in it, infinite duration—in one word the Almighty, for this word involves eternity, omniscience, and omnipresence. Here is the highest sublimity, whose majestic grandeur is to be contemplated with awe and reverence, but as a later dispensation taught fully, also with love. The world we know is great, the sun is greater, the stars are infinite in number, but greater than all is their Creator. As in Him we live and move and have our being, so He knows whence we came, why we live out our short span of life, and what the end will be.

As we have seen the sublime in nature begets the sublime in description. We have consequently many writers in all languages, who have left us much to excite the emotion of the sublime. In our own language *Paradise Lost* is, in the opinion of the majority, the most sublime of poetical works; and Dante the most sublime of other nations. No writings, however, approach the Sacred Scriptures in

*Dio Laert. *Epicur.*

sublimity, and naturally, for they claim inspiration, and treat largely of the three sublimities, God, power and eternity. Longinus, in his work on the Sublime, treats of it only in writings and authors, and it is interesting to note that for one of the highest examples of it, he went to the books of Moses. He says, in Section IX., 9, beginning: *Ταύτη γὰρ καὶ ὁ τῶν Ἰουδαίων θεσμοθέτης, οὐχ ὁ τυχὼν ἀνὴρ*, "Thus also the lawgiver of the Jews, . . . after having formed a conception of the power of the Deity suited to His dignity, has nobly expressed it, writing immediately at the commencement of his laws: 'God said,' says he, what? 'Let there be light, and there was; let the earth be, and it was.'"

It may be said in passing that this passage is interesting among those from other writers, to show that the Old Testament Scriptures were known to the ancient philosophers, which may account in some cases for the noble sentiments expressed concerning virtue and the best life.

As an instance of Biblical sublimity the following well-known passage from the Revelation of John will suffice: "And I saw a new heaven and a new earth, for the first heaven and the first earth were passed away, and there was no more sea. And I, John, saw the holy city, new Jerusalem, coming down from God out of heaven prepared as a bride adorned for her husband. And I heard a great voice out of heaven saying 'Behold the tabernacle of God is with men and He will dwell with them, and they shall be His people, and God Himself shall be with them, and be their God. And God Himself shall wipe away all tears from their eyes, and there shall be no more

death, neither sorrow, nor crying, neither shall there be any more pain, for the former things are passed away.' ”

CHAPTER XVII.

CONSCIENCE.

WE have now considered a sufficient number of the principal feelings to enable us to understand them all. We have noticed the fact that emotions and passions are but the same feelings intensified, and I venture to hope this has been made sufficiently plain to give definiteness of thought concerning them. So many authors have written indefinitely about them, some calling them emotions, some passions, that the omnivorous reader may well have been bewildered. But by the theory that they are all feelings, and pass by gradations into the others, the whole matter is simplified. Everyone can understand for example a feeling of admiration strengthening into the emotion of love, and this as time passes into a passion of love.

We have seen, too, that all of our feelings are directly or indirectly connected with desire, which is thus the great fountain head of the mental and bodily functions.

It remains, then, that the subject may not be unduly prolonged, to consider some questions that naturally belong to the domain of thought; questions that are as old as the race, and as important as any that can be considered. We will therefore

begin with the one that naturally comes first, which is conscience.

The ordinary teaching in Christendom regarding the nature of humanity is, that as a result of transgression, man has a dual nature, made up of spiritual faculties, or powers—or, in reality, desires—which incline towards evil; and of desires which incline towards goodness. St. Paul in writing to the Romans, works this out very clearly in his 7th chapter.

He supposes the case of a man secularly educated, but who had not been brought in contact with the moral law. Such a man would, as far as the laws of the land permitted, do what he liked, without any regard to whether it was right or wrong. But he becomes aware of the existence of the laws of morals, studies them, and learns that many things he does are what these laws forbid. He resolves to do them no more; but when he tries abstinence he finds a tremendous combat begun within him. The moral law says "Thou shalt not," but his whole nature cries out so strongly for gratification that he is unable to resist. "I find then a law that when I would do good, evil is present with me. For I delight in the law of God after the inward man," (better nature), "but I see another law in my members, warring against the law of my mind, and bringing me into captivity" (literally, making me a prisoner of war) "to the law of sin which is in my members."

Before he knew the law of morals all was plain sailing, because there was no awakened spiritual nature to fight the evil. There was no voice to tell him he was doing wrong. Now this voice is what

conscience is; that is, it is the spokesman, or the advocate of our spiritual desires. But let us notice this teaching of the dual nature.

There were philosophers in ancient times, who contended that man was by nature no more evil than animals; and it was natural they should do so, not having been educated in as perfect a code of moral laws as we. "He" (Theodorus, a pupil of Dionysius, the Dialectician) "allowed that a wise man might steal, and commit adultery, and sacrilege at proper seasons, for that none of these actions were disgraceful by nature, if one only put out of sight the common opinion about them, which owes its existence to the consent of fools. And he said, that the wise man would indulge his passions openly without any regard to circumstances," etc., etc. (Dio. Laert. Aristippus).

They taught, for example, in one breath virtue; and in the next, that marriage was not necessary; but that living together should depend upon inclination. If a man's wife bore him no children, a friend might be called in to solve the difficulty. And remember this was the teaching of many of the instructors in the best schools. The question of overpopulation was easily solved by the man who had as many children as he wanted, exposing (for destruction) any others that came. What men could not do was what would injure their neighbours, or the state; and they were taught good principles of abstinence from certain foods and drinks, so as not to injure themselves.

Of course, only some of their sins are touched upon. It is enough to add that what we call gross

immorality entered into some parts of their religious worship.

It would be easy then for such writers to teach that men were by nature good, because resistance to gross evil was in a way unknown; and they were all in the position St. Paul supposes of the educated man ignorant of moral laws.

Such teaching still exists, but let us hear the late Professor Huxley upon it, as he cannot be accused of having what Mr. Herbert Spencer in his *Sociology* calls a "Theological Bias."

"It is the secret of the superiority of the best theological teachers to the majority of their opponents, that they substantially recognize these realities of things, however strange the forms in which they clothe their conceptions. The doctrine of predestination, of original sin, of the innate depravity of man, and the evil fate of the greater part of the race; of the primacy of Satan in this world; of the essential vileness of matter; of a malevolent Demiurgus subordinate to a benevolent Almighty, who has only lately revealed himself; faulty as they are, appear to me to be vastly nearer the truth than the liberal popular illusions that babies are all born good, and that the example of a corrupt society is responsible for their failure to remain so; that it is given to everybody to reach the ethereal ideal, if he will only try; that all partial evil is universal good; and that other optimistic figments, such as that which represents 'Providence' under the guise of a paternal philanthropist; and bids us believe that everything will come right (according to our notions) at last."*

* *An Apologetic Irenicon*. Fortnightly, Nov. '92. Huxley.

In Christendom, however, moral teaching is begun very young. Everyone then has an opportunity of ascertaining for himself the truth of St. Paul's statement. To me, after years of thought about it, apart from Revelation, it seems to be a correct description as a result of the freedom of our natures by creation.

Man is plainly different to animals in this respect. Writers on the horse, for example, as Youatt, or "Stonehenge," all tell us what many have learnt by experience. They say that no horse is vicious by nature; that when found so, he has been made so by man. This is strictly correct. They advise then in the rearing of colts, that they should be handled every day; petted, and fed from the hand, etc. Once I had a colt of my own brought up in this way. It was given to a kind man to rear, who had his instructions; and it grew up as gentle as a dog, just in short, like an Arab horse. Such a thing as biting or kicking at a human being never occurred to it.

Again, if we take beasts of prey, as a rule we find that they, for example, do not wantonly destroy. The lion kills when he wants food, and when the lioness and cubs are supplied, is satisfied till it is wanted again. Take him all in all, putting the killing which he must do out of the question, he is much more moral than many human beings; and beasts of prey are the extreme case.

But human beings are not naturally moral. By this it is not meant that a man in distress steals to live, or things like that; but that if a man knows quite well what is right, he naturally prefers to do the wrong. He often wishes to do all kinds of wickedness for its own sake. Although he may be wealthy, and have everything that heart could desire

to use lawfully; the wealth is often used to purchase in various ways the gratification of the evil desires of his mind. Plainly then there is an evil in him which is not in inferior animals; that is, there are the evil desires of his mind and body, which St. Paul calls "the flesh." If sin is thought out, it will be found to be some lawful thing pushed to excess; and this excess is exactly what ordinary human nature demands.

Now the powers for good that are within us need to be educated, and after they are so in child, youth, or man, when the desire to do wrong comes, conscience says "Don't;" while if the wrong has been done, conscience upbraids very strongly, unless weakened or partially silenced by neglect.

But that conscience needs to be educated, and that its decisions upon right and wrong in after life depend upon its education, is a fact very necessary to be constantly borne in mind, as it shows the great importance of a right training. Persons who have not thought much upon this subject, or whose minds have not been properly trained, think they are perfectly right in declining to do what their conscience will not allow. With them, "My conscience will not let me do it," is supposed to be unanswerable; because under the statement lies the belief that their conscience cannot make a mistake. If you suggest that they must not trust their conscience always, unless corroborated by evidence there is no mistaking; they look at you with a pitying smile for your want of knowledge. Let us see however if conscience is in all cases so very reliable.

We take two men then from different religious schools of thought in which each has been educated.

With regard to religion, honesty, and sincerity, they are equal; and we will suppose the best that can be got. One is a clergyman of the Establishment, the other a Baptist minister. If a woman brought her baby to the Establishment man to be christened, he would at once do it, and tell you his conscience would condemn him if he refused. On the other hand if she brought it to the Baptist minister, he would decline to baptise, and tell you his conscience would condemn him if he did.

Here then are two consciences contradicting each other, and as two contradictories cannot both be right, plainly the conscience of one of these gentlemen must not only be mistaken, but upholding with all its strength its possessor in his error. Which conscience is right need not be discussed here. Each one would say the other was wrong, and the only way to settle it, would be to determine the larger question of which church is nearer the truth.

When clergymen then, are disposed to violate the laws of their church or land in religious matters, and to justify their action by an appeal to conscience, better evidence than this will be needed to prove that they are right; for plainly, those who made the laws of the church or state which they violate, made these laws conscientiously; and were perhaps wiser and more learned than the man who is violating them.

Conscience again is carefully to be guarded against, and unbiassed advice sought from a friend, when it either coincides strongly with what we want; or when, on the contrary, to follow it might cause us great loss. In the first of these instances scruples are apt to be present, and of them Bishop

Burnet says in one of his most interesting works, the History of his own Times (I., 477): "But scruples are mighty things when they concur with inclination or interest;" and Goulburn says of them plainly: "The devil is the author of scruples, both in the mind of the hypocrite and of the Christian."*

Concerning the second, the sacrifice is often wrongly made from a fear that the desire to withhold it is against conscience, because it is what the subject would like. In all such instances of difficulty with conscience, nothing is so safe as the counsel of a wise friend or acquaintance, whose judgment we can trust, and who is absolutely unprejudiced.

That the germ of conscience is innate in us, is what some affirm; but it is hard to get at exactly what is meant by the expression. To my thinking, it seems better to say that what is inherent in us by nature, that is, the spiritual part, is the power to understand and love right and morality. This, and not reason, is what separates us widely from inferior animals. Your dog can be taught obedience to do what you want, and not to do what you do not want. You may break off a cat from stealing possibly, by punishment or reward; but you never could get your dog or cat to understand that it is morally wrong to steal. I doubt if they could be taught it even if they had the power of speech; but this must be only conjecture, as it cannot be determined. All inferior animals are absolutely incapable of understanding moral distinctions; and savages are also incapable of it till they are taught. They do not manifest the slightest shred of what we call con-

* Thoughts on Personal Religion III., 9.

science, until they have had a moral training, when it becomes active enough. Here then, is the difference; you can awaken and call into exercise the power in man, but never in the inferior animal.

This is not the place to write at length ethically of conscience, or one might say much of the high type of man or woman who, in the plain principles of right and wrong, never do what their conscience would condemn; as in addition to its ordinary reproaches, the strongest to them would be the loss of self-respect.

It may however, be permitted to add, that conscience is a dangerous thing to trifle with by those who have had a proper moral training. It may be weakened or asleep apparently, but it is never dead. They realise this to the full who ruin their life, and those of others belonging to them, by the commission of a crime. Conscience *then*, is alive actively enough; but now not to warn or upbraid, but to torment with the stings of remorse so often dependent upon the awful reality of the "too late."

"O conscience into what abyss of fears
And horrors hast thou driven me, out of which
I find no way, from deep to deeper plunged."*

*Paradise Lost, Bk. X.

CHAPTER XVIII.

THE SOUL.

IN Hebrew, Greek, Latin and other ancient languages, the word used for the soul or for a spirit is the same word that is used for the air or breath, and is derived from the verb to breathe or blow. The reason of this is the very natural one, that the soul or spirit, or a spirit is something like the air that cannot be seen, but whose influence can be felt; or like the breath, which may be seen for a moment before vanishing.

In Hebrew we have three words used for soul or spirit.

(1) נְשָׁמָה means breath or spirit, and is derived from נָשַׁם to breathe, to pant or to blow.

(2) נֶפֶשׁ breath or air, from נָפַשׁ to breathe or to pant.

(3) רוּחַ breath or spirit, from רָחַץ to blow.

In Greek we have πνεῦμα, air, breath, or spirit, from πνέω to blow or breathe; and ψυχή, breath or spirit, from ψύχω to breathe or blow.

In Latin we have *anima* (whence animal), air, breath, or life, or soul of the departed, derived from the Greek, ἄνεμος the wind; (2) *animus* (akin to *anima*), the soul, or principle of life; and (3) *spiritus* (whence spirit), breath, or a breeze, from *spiro*, to breathe.

Now before saying anything about the soul, that is, what our knowledge of it appears to me to be; it may be well to notice what has been held of it from ancient times.

As far as I am aware, there appears to have been among the civilised nations of antiquity a firm belief that there was in man a something called the soul, or spirit, which is imperishable; which survives after the destruction of the body. It appears from the Book of the Dead of Ancient Egypt, and we learn it also from the Old Testament Scriptures. There, however, nothing is explicitly taught about it as a doctrine, but it is assumed to be known and believed. For instance, after the death of Samuel, when Saul went to the diviner of Endor, he asked her to bring up Samuel, that is the spirit of Samuel, who told Saul, "to-morrow shalt thou and thy sons be with me."

Here a general belief in the survival of the soul after death is plainly apparent.

Again, when the prophet Elijah restored to life the child of the widow, he prayed that the child's "soul" might come into him again. Here, however, the word used in this passage—I. Kings xviii., 21—*nephesh*, the second Hebrew word given above is like the others, used so generally, that it might be translated, Let this child's life come into him again.

From these Hebrew words there is not much to be gathered that is definite about the soul, in the sense in which we understand it. The first word נְשָׁמָה may mean, the Spirit of God, breath, or spirit; the spirit of man; a living creature; while in Proverbs xx., 27, where it is translated the spirit of man, it plainly means the mind.

The second, נֶפֶשׁ may be translated breath, the soul, life, living creature; soul, said to live and to die—as in Judges xvi., 30, “Let my soul die with the Philistines”—it can be killed; satisfied with food; it can be greedy—so used for the appetites; and the word can be translated living soul, or it can be used of all living animals. Lastly, it can be used for one’s self, as *e.g.*, “Many say of me”—literally of my soul.

So the third word רוּחַ is used for breath, or air, or vain words, or a quarter of the heavens, or the vital principle of life, or the seat of the senses, mode of thought, will or counsel, and Spirit of God.

All this means that the use of the word soul when it appears, depended on the translators; as in Genesis ii., 7, “living soul” may be translated living creature. נֶפֶשׁ.

We see then that the idea pervaded the Old Testament without being explicitly taught in it; but taken in connection with the general belief in the resurrection, and the statements about it as in Ecclesiastes and Daniel; the repeated translation of a word by soul, when that is evidently meant, is plainly justifiable.

In the New Testament where the teaching is much more developed, it is naturally much more explicit. The Holy Ghost, called the Spirit of God in the Old Testament, is very definitely spoken of; the resurrection is most explicitly taught, as in St. Matthew xxv., and elsewhere; we have the parable of the rich man and Lazarus; St. Peter’s account of our Lord’s descent into Hades; Rev. vi., 9, “I saw under the altar the souls (τὰς ψυχὰς) of them that were beheaded.” There is nothing approaching indefi-

niteness here, for as plainly as words can teach, is taught the truth that we have a soul; an immortal part of us which may live in a state of happiness.

In the New Testament the Greek words for soul or spirit are used in many significations, like the Hebrew words in the Old. *Πνεῦμα* for example is used for the wind, the breath, spirit of man, life soul, feelings, emotions, passions, created spirits, spirit of evil, or Holy Ghost, etc.; and *ψυχή* is used in almost as many intentions, and for the same things. It is used for both *anima* and *animus*, as *πνεῦμα* is also.

We find a belief in the soul and another world prevalent in ancient Egypt. In the Book of the Dead, The Papyrus of Ani, we read (chap. cli., 6), "Adoration to Ra when he riseth in the horizon of the east of heaven by Osiris Ani, triumphant.

Adoration to Ra when he setteth in the horizon western of heaven. Saith Osiris Ani, triumphant in peace in the underworld. I am a soul perfect.

Saith Osiris Ani in triumph: I am a soul perfect in divine egg this of the abtu fish."

Mr. E. A. Wallis Budge, Keeper of Egyptian and Assyrian Antiquities in the British Museum, the learned translator of the Papyrus of Ani, says of the Egyptian doctrine of eternal life in the introduction to his translation:

"To that part of man which beyond all doubt was believed to enjoy an eternal existence in heaven in a state of glory, the Egyptians gave the name *Ba*, a word which means something like sublime, noble; and which has always hitherto been translated by 'soul.' The *Ba* is not incorporeal, for although it dwells in the *Ka* and is in some respects like the

heart, the principle of life in man, still it possesses both substance and form. In form it is depicted as a human-headed hawk, and in nature and substance it is stated to be exceedingly refined or ethereal. It revisited the body in the tomb and re-animated it, and conversed with it; it could take upon itself any shape that it pleased, and it had the power of passing into heaven, and of dwelling with the perfected souls there. It was eternal. As the *Ba* was closely associated with the *Ka*, it partook of the funeral offerings; and in one aspect of its existence at least, it was liable to decay if not properly and sufficiently nourished. In the pyramid texts, the permanent dwelling place of the *Ba* or soul is heaven, with the gods whose life it shares."

' Behold Unas cometh forth on day this, in the form

Exact of a soul living.

Their soul is in Unas. Standeth thy soul among the Gods.

Hail Pepi this! cometh to thee the eye of Horus, it
speaketh with thee

Cometh to thee thy soul which is among the Gods.

Pure is thy soul among the Gods.

As liveth Osiris, and as liveth the soul in Netat, so
liveth this Pepi.'

Again in Plate xxxiv. we read, "The beginning of the chapters of the Sekhet-Netepu, and the chapters of coming forth by day, and of going in and of coming out from the underworld, and of arriving in the Sekhet-Aauru, and of being in peace in the great town, the lady of winds. Let me have power there. Let me be strong there, that I may plough there. Let me reap there. Let me eat there. Let me drink there as they are all done upon earth."

A belief in the soul is freely expressed by the ancient Greek philosophers. They may have got it

from Egypt, where some of them, like Pythagoras, studied; and the Egyptians again may have got it from the Jews, for, as we have already seen, there is not the least reason for doubting that the ancient Hebrew scriptures or parts of them were known to the Greek philosophers and Roman also. Take the following from Tacitus as a specimen: "The God of the Jews is the great governing mind that directs and guides the whole frame of nature, eternal, infinite, and neither capable of change nor subject to decay."*

The confidence with which these philosophers speak of the soul and define its powers, is often startling, considering the difficulty of the subject, that is, not as a matter of belief, but of definition. Diogenes Laertius says of Thales†: "Some again (one of whom is Chærilus the poet) say that he was the first person who affirmed that the souls of men were immortal."

Of Plato, he says: "He affirmed that the soul was immortal, and clothed in many bodies successively, and that its first principle was number, and that the first principle of the body was geometry. And he defined it as an abstract idea of spirit, diffused in every direction. He said also that it was self-moving and three-fold, for that that part of it which was capable of reasoning was situated in the head; that that portion which was affected by passion was seated round the heart; and that which concerned the appetite was placed round the stomach and liver, etc." Again, "The soul is divided into three parts; for one part of it is capable of reason, another is influenced by appetite; the third part is liable to

* Hist. V. 5. † Bohn's Trans.

passion. Of these the reasoning part is the cause of deliberating, and reasoning, and understanding, and everything of that kind. The appetite is that portion of the soul which is the cause of desiring to eat, and things of that kind. The passionate part is the cause of men feeling confidence and delight, and grief and anger."

The doctrine of the Stoics was peculiar. "They also say that generation is the dominant part of the soul, which is its most excellent part; in which the imagination and the desires are formed, and whence reason proceeds. And this place is in the heart."

Pythagoras held the transmigration of souls, possibly by enlarging upon the Egyptian doctrine of the *Ba* and *Ka*. "Heraclides Ponticus says that he (Pythagoras) was accustomed to speak of himself in this manner; that he had formerly been *Æthalides*, and had been accounted the son of Mercury; and that Mercury had desired him to select any gift he pleased except immortality. And that he accordingly had requested that whether living or dead he might preserve the memory of what had happened to him. While therefore he was alive he recollected everything; and when he was dead he retained the same memory. And at a subsequent period he passed into Euphorbus, and was wounded by Menelaus. And while he was Euphorbus, he used to say that he had formerly been *Æthalides*, and that he had received as a gift from Mercury the perpetual transmigration of his soul, so that it was constantly transmigrating and passing into whatever plants or animals it pleased. . . . He wrote a book on the soul and maintained the opinion that the soul of

man is divided into three parts, into intuition (*νοῦς*) and reason (*φρῆν*) and mind (*θυμὸς*); and that the first and last divisions are found also in other animals, but that the middle one, reason, is only found in man. And that the chief abode of the soul is in those parts of the body which are between the heart and the brain, and that that portion of it which is in the heart is the mind, but that deliberation (*νοῦς*) and reason (*φρῆν*) reside in the brain."

In his letter to Herodotus Epicurus says of the soul: "Let us now return to the study of the affections and of the sensations, for this will be the best method of proving that the soul is a bodily substance, composed of slight particles diffused over all the members of the body, and presenting a great analogy to a sort of spirit, having an admixture of heat, resembling at one time one, and at another time the other of those two principles. There exists in it a special part endowed with an extreme mobility, in consequence of the exceeding slowness of the elements which compose it, and also in reference to its more immediate sympathy with the rest of the body. * * *

It is on this account that when the soul departs, the body is no longer possessed of sensation; for it has not this power (sensation) in itself; but on the other hand this power can only manifest itself in the soul through the medium of the body."

The Chinese have a strong belief in a multitude of spirits, which has come down to them from their ancient teachers. From their custom of sacrificing to their ancestors the belief that their souls are living would also appear to be very general. "The Master said, How abundantly do spiritual beings dis-

play the powers that belong to them. We look for them but do not see them; we listen to but do not hear them, yet they enter into all things, and there is nothing without them."

"(3) They cause all the people of the Empire to fast and purify themselves in their richest dresses, in order to attend at their sacrifices. Then, like overflowing water, they seem to be over the heads, and on the right and left of their worshippers."

"(4) It is said in the Book of Poetry, The approaches of the spirits you cannot surmise; and can you treat them with indifference?" (Chinese Classics, Doct. of the Mean XVI.)

"Chapter XIX., 2. Now Filial piety is seen in the skilful carrying out of the wishes of our forefathers, and the skilful carrying forward of their undertakings."

"(6) By the ceremonies of the sacrifices to heaven and earth they served God; and by the ceremonies of the ancestral temple they sacrificed to their ancestors. He who understands the ceremonies of the sacrifices to heaven and earth, and the meaning of the several sacrifices to ancestors, would find the government of a kingdom as easy as to look into his palm."*

It is well known that the British Druids taught the transmigration of souls also, but let us conclude the quotations from the ancient and later world with one from Ossian's Cathlin of Clutha. "The night came down; we strode in silence each to the hill of ghosts that spirits might descend in our dreams to mark us for the field. We struck the shield of the dead, we raised the music of songs. We thrice called the ghosts of our fathers. We laid us down

* See also the Dragon Image and Demon, by H. C. DuBose.

in dreams. Trenmor came before mine eyes, the tall form of other years. His blue hosts were behind him in half-distinguished rows. Scarce seen is their strife in mist, or the stretching forward to deaths. I listened but no sound was there. The forms were empty wind."

These quotations will be sufficient, not to speak of the Indian, Persian and Mahommedan writers generally, to show how wide spread was the belief in the soul, and spirits of the dead in the ancient world; and how dogmatically some of the ancient philosophers spoke of the soul and its powers.

In the modern world multitudinous books have been written about the soul. It will be sufficient if reference is made to one of the most learned of them all, Schlegel's Lectures. The following are the titles of the first five lectures in his Philosophy of Life. "(1) Of the thinking soul as the centre of consciousness. (2) Of the loving soul as the centre of the moral life. (3) Of the soul's share in knowledge. (4) Of the soul in relation to nature. (5) Of the soul of man in relation to God."

Now, for my part, I wish to say at once that my knowledge of the soul is absolutely nothing. I believe in its existence, because we are told so in Divine revelation; of its separation from the body at death, its reunion with a glorified body after death, and its immortality; but what it is, and what are its powers I can but conjecture.

As it is denied to inferior animals, by comparing their powers with ours, we can see, by abstraction, what it is not. First, then, it does not constitute our identity, the thinking *ego*, that is, the same from birth till death at seventy, eighty, or ninety years,

no matter what changes have taken place in the body; for animals have that. Again, it is not the power which gives us consciousness, or sensations, for animals have these. Nor is it the principle of life, for that is found not only in inferior animals, but universally in the vegetable kingdom. Nor again is it the faculty of thought or reason, for inferior animals as we have seen, have this in common with ourselves, but in a less degree of power; neither is it memory, for animals have that.

Now, if we say it is any of these we must logically allow souls to inferior animals; but if we deny souls to them, and want to talk or write about the powers of the soul, we must look at what we have, which they have not.

Above it was pointed out that the great distinguishing trait between us and inferior animals is the power of recognizing moral distinctions, and so being morally responsible. We also find within ourselves longings for the absolute, in—to put it as shortly as possible—perfection in humanity; in the realizing of the beautiful; in the enjoyment of the harmony of sound; in the perfection of association and friendship; in fact, of perfect happiness, and immortality, and the presence of the Deity.

Now, no one can say that inferior animals have these, for they can have no knowledge of morality, nor of the absolute. These powers, then, may be ascribed to the soul, but no one, I think, can prove conclusively that they belong to it, any more than anyone can deny conclusively that they do. What probability there is would incline to the belief that they are connected with the soul, because they are cognate ideas of the conception that we would naturally form of the soul.

But since we find in Divine Revelation these powers ascribed to the soul, we may and ought to believe that the soul is responsible for them: but this is a very different thing from saying that we can prove it *a priori* from our study of ourselves. This is why, apart from Revelation, I have expressed myself as knowing nothing of the soul beyond my belief. This belief, however, which is so general, is quite strong enough for humanity; that is, like our belief in a Deity and Divine things, it is a sufficiently strong foundation upon which to build the fabric of hope in the future satisfaction of the aspirations and longings that we have for the absolute, when we shall know as we are known.

“It must be so! Plato, thou reasonest well,
Else whence this pleasing hope this fond desire,
This longing after immortality?
Or whence this secret dread and inward horror
Of falling into nought? Why shrinks the soul
Back on herself, and startles at destruction?
’Tis the Divinity that stirs within us,
’Tis Heaven itself that points out an hereafter
And intimates eternity to man.”*

St. Paul, who did not believe like us, but knew by his senses the life of Jesus Christ, said with reference to these very longings: “For I am in a strait betwixt two, having a desire to depart and to be with Christ, which is far better.” As far as we can learn, these longings are as old as a spiritually enlightened humanity. They breathe through the lives of the patriarchs, flash out of the poetry of the Book of Job like stars in a dark firmament, and irradiate the psalms and the prophets with a glorified effulgence. Take as an instance, Micah, when lost in

* Cato. Addison.

his contemplation of the majesty of the Divinity. "Wherewith shall I come before the Lord, and bow myself before the high God? Shall I come before Him with burnt offerings, with calves of a year old? Will the Lord be pleased with thousands of rams or with ten thousand rivers of oil? Shall I give my first-born for my transgression, the fruit of my body for the sin of my soul?"

We have all felt these longings. Carried away at times by the contemplation of the beautiful in the heavens and the earth combined in a magnificent sunrise, we have thought, what would it be to have perfect powers to realize the absolutely beautiful? When again, in a gorgeous sunset we have seen the day's last banks of cumuli clouds, resplendent in white, and silver, and French grey, and gold, according to where the sunbeams struck upon them, piled in heaps, mass above mass, with the great orb of day ever more and more reddening as he approaches the gold-edged strata clouds stretched above the sea. a resplendent flood of reflected glory; we have thought that the picture would be complete, could there have been angels, with bright wings, appearing and disappearing in the limpid cerulean blue that here and there peeped upon us between the fleecy mountains. It reminds one of the glimpse of heaven mentioned by the dreamer, "Which when I had seen, I wished myself among them;" or like the beatific vision of the exile of Patmos, which when he had seen he fell at his feet as dead.

Or again, with those passionately fond of music, when in a great cathedral the repressed tones of the organ steal from the chancel to float round the beautifully chiselled columns, and among the groined

arches away to the distant roof, and the strains of "O rest in the Lord!" or Spohr's familiar "As pants the hart"—fall upon the ear, the flute stop taking the solo; how the soul seems lifted above earthly things to the thought of the divine music of heaven! Just the same emotion has been awakened in the souls of many when they heard for the first time perfectly sung, that wonderful unaccompanied sextette of Sullivan's "Patience," in its intensely clever harmonious simplicity, "The old, old love."

Such longings cannot be of the earth, while such glimpses of the beautiful in sight, and the harmonious in sound recall the words of Mr. Balfour in his *Foundations of Belief*. "We must believe that somewhere and for some Being there shines an unchanging splendour of beauty, of which in nature and in art we see each of us from our own standpoint only passing gleams and stray reflections, whose different aspects we cannot now co-ordinate, whose import we cannot fully comprehend, but which at least is something other than the chance play of subjective sensibility, or the far off echo of ancestral lusts."

Let us conclude our observations on the soul with one of those beautiful thoughts of Plato, found in Book Ten of his *Republic*, which one is so pleased to find coming from a pre-Christian heathen source. "But if the company will be persuaded by me, accounting the soul immortal, and able to bear all evil, and all good, we shall always hold the road which leads above; and justice with prudence we shall by all means pursue in order that we may be friends both to ourselves and to the gods, both whilst

we remain here and when we receive its rewards, like victors assembled together; and we shall both here, and in that thousand years' journey we have described, enjoy a happy life."

CHAPTER XIX.

FAITH AND KNOWLEDGE.

ABOVE when I gave as the one law of thought, what is possible in experience is possible in thought; and what is impossible in experience is impossible in thought, we had the most general statement possible of what our knowledge may be. For all our knowledge is derived from experience, that is, the past experience of humanity; and what will be known in the future will be derived in the same way. Further, we saw that what is considered by some to be derived from pure reason, is not so in reality; but is only an advance in further and more distant fields of experience, which, without the previous steps derived from experience, it would be absolutely impossible to explore. We saw also very early in our consideration of the subject that all our knowledge is primarily derived by means of our senses.

Now, in looking back over the history of the world and studying the experiences of humanity, no fact can be more plain than this, that no one generation of humanity could have during its time the personal experiences of all generations, or indeed of any other generation besides its own. Indeed, we find ourselves much more circumscribed than this, so much so that we are compelled to say that no one generation of one nation has had the experiences

of any of its contemporary generations, in other nations. The experiences of no two contemporary ones could be in all respects exactly alike. From this we may descend at once to the statement that in any age of the world's history no two individuals of the same nation, of any generation who lived to, say, even the age of twenty years, had exactly the same experiences.

But as history tells us other people in millions have lived and died before our time, and if we have attained many years we know that the same has happened during our time, and that all these people have had experiences, differing in many respects from ours, which we could not know personally; we find very early that we must have to do with another kind of information than that which we derive directly by means of our senses. This information we call belief, and when applied to spiritual things belief or faith.

We believe then that Adam, Moses, David, Isaiah, our blessed Lord, and His twelve apostles lived and died, though we have seen none of them. We believe it upon the written testimony that has come down to us, which we can read with our eyes, and examine for ourselves. We believe that such philosophers lived as Thales, Solon, Bias, Criton, Perian-der, Diogenes, Archimedes, Soerates, Plato, Aristotle, Epictetus, etc., upon just the same testimony although we have not seen them, and can never see any one who has seen them. Just in the same way we believe that Homer, Virgil, Ovid, Juvenal, Terence, Livy, and Tacitus, etc., lived and wrote, though we have never seen them. Upon just the same testi-

mony we believe that Shakespeare, Kant, Bacon, Schopenhauer, Voltaire, etc., lived and wrote. The only difference between these last and the others is that they are nearer our time. But this does not prevent our belief in their identity being disputed, as already there are some who contend that Shakespeare was a myth, and that Bacon wrote his plays; just as three hundred years hence some learned man in research may discover that W. S. Gilbert was a pseudonym used by the greatest philosopher of the nineteenth century. To those who have read the philosophy of Pyrrho this is no matter for surprise; as while the world stands there will always be found men who will deny anything, as we have seen, even your own existence or that of matter.

In these cases the question of our belief turns upon the credibility of the testimony adduced. If we think it sufficient we believe; if not, we may take the neutral ground of holding our judgment in suspense for further evidence—agnostic; or we may deny. If however, we deny, we need caution rather more than if we affirm; as naturally we may be against the weight of evidence which may have been very generally received for centuries; in short, authority. This Mr. Balfour in his *Foundations of Belief* proves to a demonstration is an absolute necessity for education.

At a watering place where my family and I were staying a few years since, a clergyman met an elderly spinster lady who had read what is called the "Higher Criticism," which as this incident will show, has been ill-advisedly printed in the vernacular. She affirmed in his presence and that of others

that nowadays no one believed (what Froude calls in his *Short Studies on Great Subjects*) "the snake story" of Adam and Eve; because Moses did not write the Pentateuch. The clergyman asked her: "Do you believe that Jesus Christ was a good man, and a great moral teacher?"

"Yes, most certainly."

"Do you believe that as such He would not lie, or affirm a mistake as a truth?"

"Yes, decidedly."

"What then do you say to these words of Jesus Christ: 'Had ye believed Moses, ye would have believed Me, for He wrote of Me'? (*Εἰ γὰρ ἐπιστεύετε Μωσῇ, ἐπιστεύετε αὐ ἐμοί· περὶ γὰρ ἐμοῦ ἐκεῖνος ἔγραψεν*). (St. John v., 46.)

The old lady was, to speak nautically, literally thrown upon her beam ends; but considering open confession the best course, acknowledged, "Well, to tell you the truth, I never thought of that before."

It may be said in passing, that the same question may be asked of some clergymen who accept the conclusions of the "Higher Criticism," and still preach Jesus Christ and St. Paul, who both plainly accepted the Old Testament; with the additional advantages over us of One being divine, of both being Jews, knowing more of Hebrew than we, and living 1900 years nearer to the times written about than we. Will they collapse, or take refuge in a denial of St. John's Gospel and the Pauline epistles; or say that Jesus Christ and St. Paul were mistaken, and still continue to preach and hold office, while acknowledging, if asked, that they had read logic?

With reference then to the doctrinal statements

of the Bible, of the existence of God, of Jesus Christ and the Incarnation, of His miracles and teaching, those who believe these things do so on the testimony of the men who had personal experience of them. This is put as plainly as possible by St. John (I. Epistle, i.): "That which was from the beginning, which we have heard, which we have seen with our eyes, which we have looked upon, and our hands have handled of the word of life—That which we have seen and heard, declare we unto you." He is referring here, it will be noticed, not to his belief, but to the knowledge he had gained by means of his senses. This was why he taught, because he *knew*.

It is upon the testimony of such men among other reasons, that Jews believe in the Old Testament, and Christians in the Old and New. And so the Apostles' Creed, the earliest and shortest of the three, does not begin with the words, "I know," but "I believe;" meaning that belief or faith is exercised about things which cannot be known by means of the senses. Consequently, if a Christian is asked how he *knows* this or that, seeing that it is an attempt to catch him by words, he replies that he does not say that he knows, nor does his creed either, which expresses his belief. For the reasons why he believes, he refers his questioner to the libraries of volumes that have been written upon Biblical evidences.

It may be said in passing, that no one ought to openly teach an atheistic or agnostic negation who has not fully read all the authors and languages usually read in a university course, with a complete training in divinity; and honestly tried to live the

Christian's life. Jesus Christ demanded this last for the proper understanding of His teaching. "If any man will do His will, he shall know of the doctrine," etc. (St. John vii., 17).

If this is not done, and one undertakes while he has a natural bias towards evil, to criticise a teaching he does not care to adopt, his bias influences his judgment; while if he teach unbelief, without having read all that can be said for belief, he is teaching it upon partial information. The result of this may be, that like a lady who recently lectured upon atheism, made converts and afterwards returned to belief; her converts were left sadly in the lurch.

This happened with David Hume. He taught and made converts, and after he and they are dead (they dying believing in him), we find Mr. Herbert Spencer writing of his teaching: "But further inquiry is, I think, manifestly unnecessary. Either the sceptical conclusions Hume draws are legitimately deducible from the principles he lays down, or they are not. If they are not so deducible, then his reasoning being inconsequent, need not be examined. If they are legitimately deducible, then they are invalidated by the badness of the premises. A logical apparatus that is to overturn the deepest of human beliefs must have an extremely firm base; must have parts rigid enough to bear any strain; and must have these parts so firmly articulated that there is no dislocating them. Far from finding that the co-ordinated groups of propositions with which Hume sets out, fulfil this requirement; we find them incapable of bearing any strain at all—we find them altogether incoherent. Nay, worse than incoherent.

On trying to fit them together to see how they will work as an argument, we discover that the different parts absolutely refuse to join one another; and tumble apart as fast as they are placed in apposition." (Prin. of Psychol. II., 349.)

How much better, then, for Hume not to have disturbed the belief of his neighbours, and left them upon the very lowest ground of expediency, to have the best of what he would call "the chance." For if he was right and the Christian wrong, after death they would be equal; while if he was wrong and the Christian right, after death the loss would be on his side.

But one may say, "Is one then not to teach what he believes to be the truth?" In reply it may be said that if what he believes to be the truth may mean to thousands of hard-working people a negation of present hope and future happiness, better not teach it. *Cui bono?* If it is to make men better, more enlightened, and happier, there would be some use in it; but if while professing to make men more enlightened, it destroys hope and makes them more wretched than before, what good is it? Add to this the enormous responsibility and incalculable harm done if, as in the instances given, the teacher should be mistaken.

Every sensible man too, be he believer, agnostic, or atheist, knows that a faith is necessary for the teeming millions of the world if societies are to exist at all. This has been expressed by numerous thinkers, but no where more forcibly than by Mr. W. S. Lilly in his Chapters in European History. He says, "And if there is any lesson more emphati-

cally taught than another by the history of man it is this, that faith of some sort, be it religious, political, or philosophical, is as necessary to his moral being as air to his physical organism—a faith shared by others, and forming a spiritual atmosphere.” (p. 328). Canon Liddon says in his life of Dr. Pusey (Vol. I., 253) that the same lesson was taught by the French Revolution. “When the floodgates of human passion had been opened on a gigantic scale in the horrors of war and anarchy, men felt that religion and a clear, strong, positive religious creed was necessary if civilization was to be saved from ruin.”

For the last thirty years, while reading the leading authors against religion, I have been waiting for the new gospel of unbelief that is to act upon mankind as the natural repulsion in the atoms of gases, and separate all nations and societies into their constituent individual elements. If it is to be original, this would have to be its action; for the ground of union upon the basis of a universal brotherhood, has already been occupied by Christianity; as, unfortunately for the new gospel, has been every other ground worth occupying. Some witty American, when the partition of Africa was on the political *tapis* not long since, said that now when the nations of the earth had begun to think of colonizing, and were looking about for countries, they were beginning to wake up to the fact that “England had already grabbed all that was worth taking.”

So it is with Christianity. What is there left worth having for the new gospel to offer its would-be adherents, which is not already offered by Chris-

tianity? Is it the higher virtues; the cultivation of the God, and repression of the brute that is in us? Is it the promise of success, or happiness in life? Is it the teaching of the noblest altruism, so noble that certain writers have said it cannot be carried out without harm to the individual subject? Is it the inculcation of perfection? Is it the promise of happiness in a future life of immortality? In each instance the ground is already occupied by Christianity, where each item is taught in the fullest and best way.

As then the appeal to the highest and best is already in evidence, any new gospel could as suggested, appeal only to the lower instincts; and as the great, eternal, perfect Deity is the God of the Christian worship, to some lower object of worship, as there cannot be a higher. And this is what we find attempts at new cults do. If they appeal at all, they must do it, as there is nothing else left. Mr. W. S. Lilly in his *Chapters in European History* already quoted, says (p. 186), "As an excellent French writer (Ozanam, *La Civilization au Cinquième Siècle*) has admirably said: 'There were two doctrines of progress. There is one, the production of the schools of the sensualistic philosophy, which rehabilitates the passions, and promises to lead the masses to a terrestrial paradise by a road strewn with flowers while all the time it is conducting them to a hell upon earth, through a path defiled with blood, and with abominations worse than blood. Wide is the gate and broad is the way that leadeth to the goal of the terror, of communism, of nihilism; and many there be which go in thereat.

"The people of France are just now thronging it under the guidance of the obscene blasphemers, who, while assuring them that they shall be as gods, are rapidly transforming them into something lower than brutes."

"But there is another doctrine of progress, a progress the great law of which is to ascend from the animal to the spiritual; to

'Move upward, working out the beast,
And let the ape and tiger die;'

and it is under this law—the law of virtue, written in our hearts, Butler calls it—that we are born. . . . It is a perpetual struggle between the flesh and the spirit; the beast and the God that is in us.'"

With reference to a being to worship, as Christianity has occupied the ground of the highest conception, only lower grounds are left. Accordingly in the attempted new religion of M. Comte we have the worship of humanity. As it would be a difficult matter, rejecting the only one human being worthy of it that ever lived, to agree upon any one man or woman to worship, the abstract idea is proposed; and as this must include savages in and outside Christendom, the idea is not a pleasant one. Further, the best of Jewish and Christian humanity should be struck out, as their characters were formed by the Bible. It would be poaching to take them. There remain, then, with the savages, the noblest of the heathen world to make up the abstract idea; but the more intimate is the knowledge one has of these individual characters as moralists, the less unfortunately one feels inclined to worship them.

But according to the gaseous principle of natural

repulsion, it is better to have the opinions of the secular schools about each other. Accordingly when a few years since, this school attempted to claim the late Professor Huxley as an adherent, he thought good to publicly deny their right to claim him, in the following words: "Whoso calls to mind what I may venture to term the bright side of Christianity—that ideal of manhood with its strength and its patience, its justice and its pity for human frailty, its helpfulness to the extremity of self-sacrifice, its ethical purity and nobility which apostles have pictured, in which armies of martyrs have placed their unshakable faith, and whence obscure men and women like Catharine of Sienna and John Knox have derived the courage to rebuke popes and kings—is not likely to underrate the importance of the Christian faith as a factor in human history; or to doubt that if that faith should prove to be incompatible with our knowledge or necessary want of knowledge, some other hypostasis of men's hopes, genuine enough and worthy enough to replace it, will arise. But that the incongruous mixture of bad science with eviscerated papistry, out of which Comte manufactured the positivist religion, will be the heir of the Christian ages; I have too much respect for the humanity of the future to believe. Charles the Second told his brother: "They will not kill me, James, to make you king." Controverted Questions, p. 370.)

"When the positivist asks me to worship humanity—that is to say, to adore the generalized conception of men as they ever have been, and probably ever will be—I must reply that I could just as

soon bow down and worship the generalized conception of a 'wilderness of apes.' Surely we are not going back to the days of Paganism, when individual men were deified, and the hard good sense of a dying Vespasian could prompt the bitter jest. '*Ut puto Deus fio.*' I know no study which is so unutterably saddening as that of the evolution of humanity, as it is set forth in the annals of history." (Ibid., p. 371.)

With reference to the Christian conception of the Deity being the highest, many will recollect that Mr. H. Spencer was attacked some years since in one of the magazines for conceding in his description of the unknown first cause, everything that Christians ascribed to their Deity. He was told, and correctly, that he had said the great first cause must be thought of as almighty, eternal, and incomprehensible, and that this was what Christians said of their Deity.

Mr. Spencer defended his position with regard to these statements successfully, for it would be impossible that a great first cause could be anything else. In his *First Principles* (p. 551) he points out how religion and science are at one upon this point according to his view. He says, "It was there shewn by analysis of both our religious and our scientific ideas, that while knowledge of the cause which produces effects on our consciousness is impossible, the existence of a cause for these effects is a datum of consciousness. We saw that the belief in a Power of which no limit in Time or Space can be conceived, is that fundamental element in Religion which survives all changes of form. We saw that all Philosophies avowedly or tacitly recognise this same ultimate truth:—that while the Relativist rightly repudiates

those definite assertions which the Absolutist makes respecting existence transcending perception, he is yet at last compelled to unite with him in predicating existence transcending perception. And this inexpugnable consciousness in which Religion and Philosophy are at one with common sense, proved to be likewise that on which all exact Science is based." And this consciousness of an incomprehensible Power called omnipresent, from inability to assign its limits, is just that consciousness on which religion dwells."

With this, compare the Christian teaching of the Deity as given in the first of the thirty-nine articles of the Church of England. "There is but one living and true God, everlasting, without body, parts or passions, of infinite power, wisdom, and goodness; the Maker and Preserver of all things, both visible and invisible—" and then follows the assertion of the doctrine of the Holy Trinity.

Lastly, is anyone disposed to say that perfect human knowledge is the highest conception, and that when this is attained, the perfection of humanity will follow as a matter of course; let him observe what Dr. Henry Maudsley says in his book, "Body and Soul;" for if I remember right, his views agree in the main with Mr. Spencer's, and this is the reason for quoting him in this connection. "After all an act of heroic self-sacrifice is a nobler thing, and more civilizing, than to send a message instantly from London to Hong Kong."

"It appears then at least doubtful, when we consider the matter frankly, whether there is in the progress of scientific knowledge, and of the arts, industries, and material comforts founded on it, the promise of a real advance in true social development;

whether, in fact, knowledge is not in this respect pretty nigh impotent. The experience of the Ancients would seem to indicate as much, who were certainly equal, if not superior to us in architecture, in sculpture, in poetry, in eloquence, in philosophy, in literature, since they failed to develop out of these the forces of a higher social evolution. For what happened? With all the intellectual acquisitions of Rome, coming on the top of those of Greece, society went steadily towards destruction; and all that philosophy could do was to proclaim and lament it. Then was born of low parentage, in a most mean way, in a distant corner of the empire, a person who passed in entire obscurity thirty years of a life which ended at thirty-three years. For the three remaining years that He appeared in public He was scouted as a miserable impostor, rejected by the priests and others of His own nation, hardly thought worthy of a few words of contemptuous mention by the historians of the day, followed only by a few of the lowest persons of the lowest classes of society. At the end of His brief public career He died an ignominious death on the cross, betrayed by one of His own disciples, denied by another, abandoned by all. And yet in Him was the birth of the greatest social force, which, so far as we know, has ever arisen to modify human evolution. To have predicted it beforehand, nay, even so much as to have formed the dimmest anticipation of its coming nature, would have been as impossible to all the intellectual insight of the time, as it would have been impossible to predict before experience the organic molecules which carbon, hydrogen, nitrogen and oxygen are capable of forming. This momentous fact may well

abate the pretensions of philosophy to forecast the future of humanity; suffice it to know that if it is to progress, it will, as heretofore, draw from a source within itself deeper than knowledge, the inspiration to direct and urge it on the path of its destiny." (pp. 211, 212.)

This reminds one of the well-known anecdote of Talleyrand, told I think, by Alison, worth repeating, who cynically said to one who complained that the new religion of reason did not spread as rapidly as it ought to do: "Be crucified, die, and rise again on the third day, and people will believe you."

CHAPTER XX.

THE SUMMUM BONUM.

HERE we approach the question that has occupied the mind of man ever since humanity began to think. What is the ultimate good? How can it be attained?

To answer these questions we must fall back upon the mind, and go to the great fountain head of all our activities, desire, and ask what it is upon which the whole being would ultimately rest with perfect satisfaction. Confucius said in the text of the Great Learning (I., 2): "What the great learning teaches is to illustrate illustrious virtue, to renovate the people, and to rest in the highest excellence."

"The point where to rest being known, the object of pursuit is then determined, and that being determined, a calm imperturbedness may be attained."

The answer to these questions is that the ultimate good is happiness, and that it is only to be attained by the pursuit of perfection. Happiness, of course perfect, is the only ultimate point where rest can be found. We can see that it is this, and not perfection which is the ultimate good, by asking why we wish for perfection. We do not wish for it as an end in itself, that one may feel one has attained it; but we look on it as a means to an end. Perfect happiness can be enjoyed only by perfect beings; and if our desire for perfection be analysed, it will

be found that we desire it because of the perfect happiness which lies behind it. Perfection, then, is but the means, the highest best means to the end, the *summum bonum*, the point of eternal rest.

Humanity arrived at this truth comparatively early, and naturally so, because men early understood that happiness is the gratification of desire; and that the only happiness we can get in the world is got in that way. They found that pain was in some way or other the denial of desire, and pleasure its gratification. If hungry and weak, pleasure and strength came from eating; if sleepy, pleasure and strength came from rest. If shame came from absence of knowledge, pleasure was found in its acquisition. If bodily pain denied the physical rest and tranquility always tacitly desired, the removal of the pain brought rest and pleasure.

Accordingly the question soon became a pressing one: How can continued pleasure—happiness—be attained? As humanity was weak and ignorant, we can easily understand that happiness would be first sought as inferior animals seek it, by the gratification of all desires. But inferior animals are limited by nature in the gratification of their desires, which are consequently all lawful in them, and no harm results. Humanity, on the other hand, is not compulsorily limited in the gratification of its natural desires, which may easily then become unlawful, and incalculable harm result. But that this harm could result was, as far as we know, to be ascertained by experience. At any rate it was so learnt, for in the Hebrew history of humanity we are told that not long after the creation of man the thoughts and imaginations of their hearts were so evil that

the Deity destroyed the whole of it except one family, with a flood of waters.

Not long after humanity was just as bad again, as witness the destruction of the cities of Sodom and Gomorrah. Now this account of the tendency of humanity bears upon its face the impress of truth, for the way men are described as having acted in their pursuit of happiness is precisely what might be expected from our knowledge of human nature.

Later on great spirits arose in the world, great teachers who understood human nature; saw the way it inclined naturally, and the danger of it, and pointed out evil. The earliest and greatest of these whose name and laws have come down to us, is the Hebrew legislator Moses. That his laws of morality were as perfectly designed as was possible, we can see from the fact that they are still the foundation stones of the Christian morality, the most advanced the world can or will see. They are the ten eternal moral obligations upon which every society intended to last must be built.

But in spite of them, and of all the moral teachers before and since the days of the greatest Teacher of all, Jesus Christ, humanity is still the same; and as the whole of it in its infancy sought happiness in the unlawful gratification of desire, so does the individual in the earlier years of his life at the present day.

We would like to think it possible that through the succession of the ages, human nature would gradually evolve towards moral perfection. We would all like to believe the words of Mr. H. Spencer when he says in his *Sociology* (chapter VI.): "Further we must be on our guard against the two

opposite prevailing errors respecting man, and against the sociological errors resulting from them. We have to get rid of two beliefs that human nature is unchangeable, and that it is easily changed; and we have instead to become familiar with the conception of a human nature that is changed in the slow succession of generations by social discipline." We would all like to believe that babies are born morally better A.D. 1900 than they were in the days of Memphites of Egypt, reputedly 3000 B.C; but unfortunately the evidence is all the other way. The theory of what may be called innate moral evolution harmonizes perfectly with the theory of physical evolution, and the believers in the latter naturally desire the universal acceptance of the former; but where is the evidence? Five thousand years ought to make at least a perceptible difference.

In inanimate nature the difference made by years is plainly visible. The gradual recession of the Falls of Niagara may be seen clearly enough on the polished strata of the rocks composing the high walls of the river's channel below the present position of the falls; just as the growth of the Delta of the Nile may be seen through the vista of the ages. Why not then the smallest perceptible moral evolution? Five thousand years is not a long time in the life of a planet, but it is surely long enough for a grain of moral change in humanity. But even this is denied to us by experience, which is, that St. Paul's law of the presence of evil when we would do good is just as true of the lad now as it was of St. Paul, or as it was of the antediluvians. Every child not taught good now, does evil—that is what he wants to do by nature—just as readily as Eve ate the apple or

Cain killed Abel. If the age of humanity is not extended enough to see any perceptible change yet, the theory of innate moral evolution can remain only a theory; because, like the Nebular Hypothesis, which is as old as Greek philosophy, it would be a difficult matter to prove it. But as we have said the evidence from experience is all the other way. With evolutionists there is naturally an evolutionary bias, but not with all of them; while among writers generally there is no truth upon which all are more agreed than that human nature is the same now as it has been in all past ages. Dr. Henry Maudsley gives this truth as the foundation of trust in experience. He says in his *Body and Will* already quoted (chap. I., 9): "In every department of human activity, the person who has had experience is esteemed a wiser guide than the new comer; because of the certitude that the thoughts and acts of men are not in any respect chance events, but that what they have done before they will do again when actuated by similar motives, in similar circumstances."

That humanity in Christendom is morally better now than formerly is not due to innate moral evolution, but to the spread of Christian principles; which on account of their inherent excellence influence men in spite of the human dogmas under which they are frequently concealed, and in spite of the great crimes that have so often been committed in their name by humanity. It is, for example, due to Christianity that the Boer general, Cronje, is now living in comfort with his family in St. Helena, supported by the British Government. In the days of the Assyrian Monarchs, *mutatis mutandis*, he

would have been sent to England, and have knelt with his hands bound before H.R.H. the Prince of Wales, while the Prince calmly thrust a red hot rod of iron into each of his eyes. Why does such a picture horrify us? Not because we are innately morally better than the Assyrians, but because of the Sermon on the Mount.

But to return. The Jewish legislator taught religion as the way to happiness, and was naturally followed in that by all the moral and religious teachers of the Jews. Solomon's way was wisdom, that is, knowledge and religion combined. "Happy is the man that findeth wisdom and the man that getteth understanding." Again, in the Book of Ecclesiastes, he writes definitely of his determination to try all earthly pleasures in the pursuit of happiness, and he gives the result. He was so placed also that he could exhaust every supposed fount. "I searched in mine heart how to cheer my flesh with wine, mine heart yet guiding me with wisdom; and how to lay hold on folly, till I might see what it was good for the sons of men that they should do under the heaven all the days of their life. I made me great works, I builded me houses, I planted me vineyards, I made me gardens and parks, and I planted trees in them of all kinds of fruit; I made me pools of water to water therefrom the forest where trees were reared; I bought menservants and maidens, and had servants born in my house; also I had great possessions of herds and flocks above all that were before me in Jerusalem; I gathered me also silver and gold and the peculiar treasure of kings, and of the provinces; I got me men-singers and women-singers and the delights of

the sons of men, concubines very many. So I was great and increased more than all that were before me in Jerusalem; also my wisdom remained with me. And whatsoever mine eyes desired I kept not from them; I withheld not mine heart from any joy, for my heart rejoiced because of all my labour; and this was my portion from all my labour. Then I looked on all the works that my hands had wrought, and on all the labour that I had laboured to do, and behold all was vanity and a striving after the wind, and there was no profit under the sun." As everyone knows the final conclusion of the book is: "This is the end of the matter; all hath been heard; fear God and keep His commandments, for this is the whole duty of man," etc.

The teaching that goodness gives happiness runs implicitly through the whole of the Talmud, while when we come to the great Teacher, we find Him removing the subject to a higher plane, that of blessedness, which finds its highest happiness in Divine service, and in the possession of a spirit which has risen above the expectation of it from earthly things. He gives also the best way to attain it—perfection. "Be ye therefore perfect (τέλειοι), even as your Father which is in heaven is perfect;" of which we may observe in passing, that no new religion will find the ground of the *summum bonum* to be pursued in the best way, unoccupied by Christianity.

It may be said at once that generally happiness was taught to be the chief good by all ancient Greek and Roman philosophy, while the ways given or taken to attain it were most diverse. Diogenes, living in his cask, believed that he had a better way to attain

it than that of Epicurus or Aristippus; Zeno or Epictetus, a better way than Plato; while Pyrrho thought his way the best.

Many taught that virtue led to it, but like Shelley or George Eliot, in modern times, did not appear to think it was necessary for them to stick too closely to the ordinary conception of it when it conflicted with what they desired.

So, too, in the writings of other nations, China, India, Persia from the Magi to Omar Khayyam, what one and all sought, but in diverse ways, was happiness. To one it was to be found in the "rest of the tranquil calm" of the Great Learning; to another it would after endless transmigrations be found by absorption into the Deity; to another in the bowl of golden wine; but to all the end was the same.

It is not a matter for surprise to believers in the Great Teacher of Nazareth that He should have taught the highest happiness attainable, and the best way to pursue it; since the Divine must transcend the human. It will be well, then, to give another chapter to His way to reach it, His way of perfection, merely noting in passing that like Solomon's, His way is intended to give us the best life here, with the promise of it hereafter, or as St. Paul puts it: "Godliness is profitable unto all things, having promise of the life that now is and of that which is to come."

CHAPTER XXI.

PERFECTION, PHYSICAL.

HAPPINESS being dependent upon perfection, it is evident that we cannot attain perfect happiness without perfection, and as this latter is unattainable by humanity, perfect human happiness cannot exist in the earth. All the same, as we have seen, happiness is the aim of everyone, and will be while the world stands.

To attain perfection, then, there are three parts of ourselves we need to cultivate; the physical, intellectual, and moral. It is due to the Bible, and more especially to the New Testament, that the latter of the three is put upon the same footing as the other two; for to Horace, for example, it was sufficient to have the *mens sana in corpore sano*. Doubtless he would have included a certain amount of what we call morality in the *mens sana*—*Integer vitæ scelerisque purus*, for example—but this is not giving it equal prominence. Moreover our opinions and his of what is wickedness would hardly agree.

To me it appears that the moral is the most important of the three, inasmuch as it is the foundation stone upon which the two others ought to be built. Take the physical for instance. A youth or young man may undertake to cultivate this, but if he has had no moral training or warnings; before he is aware of what he is about he may be in such a

position as regards health, that the physical can never be perfectly cultivated in him at all.

We will consider physical perfection first, because the principal requisite for the intellectual and moral is a good dwelling-place. Naturally in this connection, the first thought that comes up is the sad circumstance that thousands of the well meaning of both sexes find themselves handicapped by something over which they could have no control—congenital physical disabilities. Fathers, grandfathers, or great grandfathers have paid little attention to the cultivation of the moral; and as experience shows that there is no law of humanity more inexorable than that the sins of the fathers are visited upon the children, unto the third and fourth generation; these persons have come into the world with the seeds of disease already sown in their bodies, to develop afterwards into scrofula or other miseries. Or again, parents have married when too closely related in consanguinity, and children have had to suffer by physical disabilities in various ways. Or again, women after marriage have gone on with their hard work in mills, at treadle sewing machines, or at the pit's mouth; and here also the children have to pay the penalty in inferior or deformed growth.

Some of us may remember an amusing cartoon in "Punch" some years ago. A stunted ill-shaped young gentleman, standing with his back to the fire, looks from one to the other of equally stunted and ill-shaped parents, and petulantly says—to their amazement, "I can't understand what induced you two to marry. You haven't given a fellow a chance." We are amused at the parents' surprise,

but one of the secrets of the physical regeneration of the race lies in the young gentleman's remark. If Tom Thumbs marry, we do not expect Goliaths of children. If the weakly marry the weak, we need not expect Sandows as offspring. If those tainted with insanity or disease marry, we cannot expect physically perfect children. Here then, is the difficulty, still further increased by this grave fact, that when young men and young women are thinking of marrying is the one time in their lives when they most need advice, and the one time in their lives when they are least disposed to take it.

The remedy for this is not to be found in compulsory measures or in legislation, but in the proper education of youth as to the ideal of physical beauty in women, and strength in men. For the cultivation of the physical, the *corpus sanum* is the first requisite, for beauty in women without that is useless; while apart from it there cannot be much strength in men. Superior height is not a first requisite, as all will no doubt agree that the nation where height is diversified among men and women, so long as both are above the average, is in these days the best for all-round purposes. Further, this has a natural tendency towards correction, since tall men do not generally prefer tall women, while short men do. Moreover, as everyone knows, height is not a necessity for excellence or for greatness in any ordinary calling. On the other hand, the reason that in modern times so many great generals have been short or of medium height, may probably be due to the fact that the great general has seen most battles; and in these the shorter man stands a better chance of escape than the taller one. If the

youth then, are properly instructed as to what constitutes the physical ideal; when old enough to choose, their choice will follow the line of least resistance, which will be the correct one.

With reference to purity of blood, proper education in morality would seem to be the only means to effect it. If in addition to moral teaching, the law in the ten commandments given above were dwelt upon more than it is; it would tend to lodge in the mind of every right thinking young man a salutary horror of sins which might ruin the health of his children or grandchildren; unfit them to take their proper position in life, and have a tendency to wipe out the name of his family and sink it into oblivion.

When the children are healthy, and parents do their best to remedy during infancy small physical defects, the education of the physical can be carried on with the best results. Happily, the age is fully alive to its duties in this respect in our own country; for athletics for both boys and girls have taken a stand they never had before. They are consequently taught, and rightly, to be of just as great importance as the education of the intellectual; for if this latter is overdone at the expense of the former, all fails in a general break-down of health.

The danger now seems to be that athletics may be overdone. The record for each item is growing, and it is becoming more and more difficult to break it. The result is that more training and greater exertion is demanded than formerly. Physicians say that when this exertion is long continued, the consequence must be to enlarge the heart, and pave the way for a sudden death at middle age. Many of us can remember the sudden dropping off at

middle age of record breakers, whose names we have known. In athletics then, in the cultivation of the physical, the proper definition of temperance, *moderation in all things*, ought to be followed. Shakespeare says :

“ Too swift arrives as tardy as too slow,”

so that if the efforts to cultivate the physical weaken it by over cultivation ; the result is as bad as a want of cultivation, since both break down under the strain of middle life.

With reference to the physical culture of girls, common sense ought to define its proper limits. If they are to marry, beget healthy children, and remain healthy themselves, ordinary common sense ought to forbid any and every form of physical culture (for example, too much bicycling), that would have a tendency to endanger the proper attainment of this object. No matter what may be said, women are not men, any more than men are giants. They are physically more delicately made than men, their constitution is much more complicated ; and consequently that form of physical culture is best for them that is carried out with a view to this, and not with a view to making them proficient in all that men do. The delicately made balance will weigh more accurately than a strong steelyard ; but if it get the same treatment as the latter, the probability is that it will soon become useless. Before girls then, are entrusted to a gymnasium instructor who has trained men all his life, it would be well for the parents if they do not strictly limit him to exactly what they wish their girls to do, to be sure that he has received directions from a physician as to what they can practise with safety.

CHAPTER XXII.

PERFECTION, INTELLECTUAL.

HERE we enter upon ground where the increase of population, and consequent increase of competition, have a tendency to make men believe that the cultivation of the intellectual ought to be done in a way that is precisely the reverse of the truth. For competition is so keen in these days, while the necessity of earning one's living is just as urgent with the majority as it ever was, that the tendency is more and more to create specialists in every branch of study. A man consequently, who wants to be a mathematician, must excel in mathematics; one who wants to be a distinguished astronomer must excel in astronomy; while another who wants to be a distinguished medical man must excel in medicine. But in this last we have so many branches, that those who want to succeed in a branch must excel in that above all others. Consequently we have as specialists, aurists, oculists, gynæcologists, brain specialists, etc.

Now what does all this mean? It means that as no one man can learn everything—since the time is so short and competition so keen—if a man is to excel in any one thing, and be a specialist, he must take up one subject and pursue that with all his time and energy, to the comparative exclusion

of everything else. The great mathematician then, cannot have nearly the same knowledge of many other subjects as he has of mathematics; and so with the astronomer and scientist. The aurist or oculist will go over the whole ground of medicine, to qualify or take a degree; and then trouble very little more about a general knowledge of medicine, but give the whole of his time to the study and practice of the ear or the eye. The classic, mathematician, or theologian, may take a university degree to give them a better standing; but sometimes they take as low a stand in other and as few subjects as possible, consistently with their getting the best position in their speciality, so as to devote their whole attention to this. Occasionally a man of exceptional ability may take a high position in two or three subjects, but even then they are only few: and if philosophy be not one of them, he may be comparatively ignorant of other branches. This is not his fault; it is a result of the general growth of higher education, and the keen competition of the age.

Tutors and crammers have, generally speaking, to be specialists also; and if the student ask one of them a question requiring research in any other branch than his own, he will usually be referred to the specialist of that branch for a reply. The result of all this is, that most men take up those subjects only which will be useful to them in after life. They thus look upon education as a means of getting a living, and not as something to train all the powers of their mind; and thus, as was observed above, the training of the intellect is generally just the reverse of what it ought to be.

Sir W. Hamilton has noticed this in his *Metaphysics*, as all his readers know (p. 14), but as he was a specialist—though in general a man most extensively read—some may be disposed to think he had a natural bias towards philosophy. He says: “Perfection (comprising happiness) being thus the one end of our existence, in so far as man is considered either as an end unto himself, or as a means to the glory of his Creator; it is evident that absolutely speaking, that is, without reference to special circumstances and relations, studies and sciences must in common with all other pursuits be judged useful as they contribute, and only as they contribute, to the perfection of our humanity—that is, to our perfection simply as men. It is manifest that in this relation alone can anything distinctively, emphatically, and without qualification be denominated useful; for as our perfection as men is the paramount and universal end proposed to the species, whatever we may style useful in any other relation, ought as conducive only to a subordinate and special end, to be so called, not simply, but with qualifying limitations. Propriety has, however, in this case been reversed in common usage. For the term “useful” has been exclusively bestowed in ordinary language on those branches of instruction which without reference to his general cultivation as a man or a gentleman, qualify an individual to earn his livelihood by a special knowledge or dexterity in some lucrative calling or profession; and it is easy to see how after the word had been thus appropriated to what, following the Germans, we may call the bread and butter sciences; those which more proximately and ob-

trusively contribute to the intellectual and moral dignity of man, should, as not having been styled the useful, come in popular opinion to be regarded as the useless branches of instruction."

"Limiting myself therefore to the utility of philosophy, as estimated by the higher standard alone, it is further to be observed that on this standard a science or study is useful in two different ways—"

. . . "The cultivation, the intellectual perfection of a man, may be estimated by the amount of two different elements, it may be estimated by the mere sum of truths which he has learned, or it may be estimated by the greater development of his faculties, as determined by their greater exercise in the pursuit and contemplation of truth. For though this may appear a paradox these elements are not merely not convertible, but are in fact very loosely connected with each other, and as an individual may possess an ample magazine of knowledge and still be little better than an intellectual barbarian, so the utility of one science may be principally seen in affording a greater number of higher and more indisputable truths—the utility of another in determining the faculties to a higher energy, and consequently to a higher cultivation."

He goes on to prove conclusively that of all studies calculated to educate the intellect, philosophy is the best; inasmuch as it is not only the highest of secular ones, but teaches the great truth so well-known to the ancients—Know thyself.

To see the truth of this, we have only to notice what a cultivated wealthy gentleman would do who wished to have an intellectual son well educated; the son being intended to inherit his father's wealth,

and so not have to work for his living. He would probably be intended for Parliament. The father would impress upon him that he must get as good a general education in all the ordinary subjects as possible, contenting himself with a good stand in all, and not making a specialty of any one unless he had a strong desire to do so. That before taking his degree mathematics, classics, ancient and modern, logic, and philosophy, should be compulsory; and afterwards, an extensive acquaintance with history and literature, the latter naturally to go on all his life. That other subjects should be read not intended for degree work, as geology, chemistry, and chemical physics, an acquaintance with primary astronomy and physiology being presupposed. If a man educated in this way, who afterwards dipped into law, entered Parliament, would he not be a better man all-round than a specialist, and not only as a member of the House, but for ordinary life? Unquestionably, for of all others your specialist is apt to be a narrow man intellectually.

But as the country is what it is, and a living must be made by the majority, it may be asked what is to be done? Thousands can answer this question better than I, but my notion would be to take a high position in the special profession chosen; and then spend the rest of one's time of work in keeping abreast of the position, and in enlightening one's ignorance upon other subjects not done or only partially done. Mr. H. Spencer says in his *Principles of Ethics* (p. 517): "Even for those purposes we distinguish as practical, that intellectual culture which makes us acquainted with the nature of things;

should be wider than is commonly thought needful. Preparation for this or that kind of business is far too special. There cannot be adequate knowledge of a particular class of natural facts, without some knowledge of other classes."

But what do we generally find? This; that those who have taken a university degree think they have an education, and so afterwards either read very little, or read their own subject only; in the one case forgetting what they have learned, in the other pursuing the path that most certainly leads to narrowness and bigotry.

Most of those who do this have not read philosophy, and therefore know comparatively little or nothing of the necessity of the general cultivation of the intellect. The proof of this may easily be seen in the following way; by inaugurating a discussion among graduates who have not read philosophy, upon which is best for the intellectual well-being of the individual; general, or special study. All except three I have discussed this question with were for specialties, and clenched their argument with the (to them) unanswerable assertion: "The specialist makes the most money."

An important change, however, ought to be made in at least one profession, and in this way: No man ought to be ordained as a clergyman of the Establishment who has not read metaphysics and logic in addition to the other subjects necessary for the profession. For a clergyman is intended to be a religious leader, and your intelligent layman who hears him preach can very easily judge of the depth of his reading and thought, and the consequent general cultivation of his mind. His respect for the office

only, keeps his contempt in check, when he knows that the teacher cannot understand, much less have read a great deal that ought to be as familiar to him as the thirty-nine articles. Not that one would say that those men who have read these subjects are the best men; by no means. One would only say that fortunately for them, having had the right way pointed out to them early in life, they have tried to follow it. The Chinese teacher was not so far wrong who left his people in "The Classics" the truth that, "Learning without thought is labour lost; thought without learning is perilous." (Confus. Analects, XV.)

CHAPTER XXIII.

PERFECTION, MORAL.

WE have seen above that man has a dual nature, the spiritual desires which incline towards good, and the desires of "the flesh" which incline towards evil. The former is the part of the God, the divine that is in him; the latter is the partial manifestation of the sleeping devil that is said to be in every man. No one, I presume, would be found to deny that the cultivation of the spiritual part in humanity will produce a higher type of man than the cultivation of the part called evil. It is plainly our duty then to cultivate this spiritual part, if we wish to produce better men and women; and therefore better societies, better nations, and a better humanity. How to do this we will now consider very briefly. As evil desires have, however, been mentioned again, it ought to be observed in passing, that no natural desire with which we have been endowed is evil, *per se*. They are all absolutely necessary for the preservation of the individual and the race, and become morally wrong only when pushed to excess; that is, wrongly used. Eating is right, gluttony wrong; drinking right, drunkenness wrong; marriage right, adultery or fornication wrong; sleeping right, slothfulness wrong; acquiring right, theft wrong; speech right, blasphemy wrong; wor-

ship of God right, idolatry wrong; rest right, laziness wrong, etc. From this it follows, that anyone who voluntarily places himself in such a position that he cannot lawfully carry out his natural desires, leads an imperfect life; and that others who endeavour in any way to crush out of existence anyone of these desires, engages in the task of fighting against God; for he is trying to destroy what the Deity, who is perfect knowledge, gave to him for his own well being and that of the race.

With reference to morality and evil, our minds seem to be like the ground. The power to grow good seeds and weeds is in it, but to get the most out of it, the good seed needs to be cultivated and the weeds rooted up. The process of care and attention needs to be begun when both are young; and so if there is to be an attempt at moral perfection in the individual, it ought to begin as early as possible, when the mind is plastic, and when as memory is brain motion, the familiar motions will strengthen with the growth of the brain and cell filaments, and so the desires for good always be in the direction of least resistance.

Here, then, is the mother's opportunity. When the child is young and dependent absolutely upon her, and the opening, inquisitive mind begins to question daily about what is becoming known; what better opportunity could there be to instil the divine principles of right, and truth, and duty? Where this is properly and conscientiously done, its influence is imperishable. Nothing can destroy it, no matter what happens in after life. Even if forbidden paths are trodden, after the mother is dead and gone; no man, however careless or hardened,

can think lightly of the time when as an infant he knelt at her knee, though the recollection of it may be like youth—a sigh. As we never can forget absolutely, the impressions and instruction of that period cannot never be shaken off. We can see this from the well-known fact, that when a man's life has been prolonged into senility, he will babble of them in his waking memories, though he finds it hard to recall nearer events.

When the child is old enough for school the same teaching should follow it there. No words are truer than "Give me the children, and I will have the nation;" and yet in spite of this, and of the fact that the large majority of the people in our country believe that moral and religious men and women will make the best citizens; there are Christian men and even women, who, to get rid of the difficulties presented by a mixed religious and secular training, would have the inferior part—the secular, compulsory; and the superior part — the religious, not. When did a purely secular education reform, or for a long period preserve a nation? Even Voltaire said, "If there were no God it would be necessary to invent him." It is your most highly-educated secularist who can be the cleverest sinner. It is useless, too, as some do, to point to this or that individual, and say he does not call himself a Christian in the highest sense of the word, but that he is a better man than many who do. No educated man who has grown up in our country can be ignorant of Christianity. He was taught it by his mother, or at school, or church; it was in the very food he ate, the very air he breathed. To understand what a nation would be, fed on secular education only, we

want at least five generations with the complete abolition of the Bible and all Christian moral and religious literature; so that the fathers and grandfathers who instruct their children should know nothing of it. If any one thinks the experiment would be a harmless one to try, let him look at the French nation, where after the great Revolution one generation—not five—grew up in ignorance of the Bible. Those who have written of it do not seem to think that a Utopia was found as a result. On the contrary, they have said that the effect upon the moral life of the nation was most deadly; and there are not wanting those who speak of many of the evils that at present exist in France as directly traceable to its influence.

Religious teaching should then, be combined with the secular, and for this purpose as far as possible, only men who believe religion should be given the instruction of youth. Is this demurred to as narrow? It is not so, but simply a statement of what the boy is to be. If a man wanted his children brought up as atheists, he would, I presume, send them to an atheistic schoolmaster. There would be nothing narrow in that, any more than if he wanted to make him a joiner, he would apprentice him to a joiner, rather than to a shoemaker. So if a man wants his boy to grow up a Christian believer, why should he not send him to a Christian, religious schoolmaster? Not that all schoolmasters should be clergymen. In many cases it is better he should not be one. The lad thinks the clergyman teaches religion because he is bound to, to get his bread and butter. When, therefore, he finds a layman teaching it, and still better living it, he will be apt

to look upon it as something necessary to the life of the ordinary layman. The best system is no doubt the prevailing one of a mixture of clergymen and laymen in both schools and universities. There is something, then, to be said for the schools where it is a *sine quâ non* that the headmaster must be in orders. In some respects, perhaps, our forebears had a certain amount of wisdom and good common sense, though they did not live in the *fin de siècle* period of the nineteenth century.

It is a pleasure to be able to say that I have met liberal agnostics who have held and propounded these views even more strongly than they are given above; and who took care to send their children to schools where they would be sure of a religious training. Here, however, it may be well to put in a word of remonstrance. This is for schools where religion is so thrust down the throats of the children—oftener girls than boys—that the pupils begin privately to hate the very sound of the word. Their life is made a burden by religious observances; and famishing girls who are forced to attend an early celebration which may last an hour and a half, are apt in after life to make their having frequently fainted at it when at school a reason why they should drop it altogether. The wise man said: “Hast thou found honey? Eat as much as is good for thee lest—” and here he specifies what the result of eating too much will be. At a certain girls’ school some years since, Sunday was filled up as follows: 7 a.m., rise; 7.30, early celebration (lasting an hour and a half); 9.15, breakfast; 10, Bible reading; 11, Divine service (parish church, an hour and a half); 1 p.m., dinner; 3, attend children’s

service in the parish church; 4.30, tea; 5 to 6, sing hymns, and meditation; 6.30, evening service, parish church; 8.30, supper, and 9.30 bed.

When his daughters came home to remain, on the first Sunday morning their father cheerily said: "Well, girls, who's for church?" The answer was, "Not I. Oh, the delight of escaping the awful Sunday at school!" As a sensible man he left the reaction in favour of church to come of itself. Religion should, as far as possible, be a pleasure, not a pain. Services should be adapted in length to age; and ascetic curates should remember that long pauses at early compulsory celebrations are not conducive to devotion in hungry recipients, who are not as strong as he, and have all the restlessness and impatience of youth.

If the foundation of a good, moral training is thus laid early in life, not much influence will be required to sustain it till the young man or woman may be left to themselves. If, however, theology is to be followed; after the course has been completed, there ought to be a great deal of general reading. Other faiths ought to be examined to learn what is good in them, so that the man instead of passing his life wrapped in the Pharisaic cloak of bigotry, which always covers ignorance, may by broadening his sympathies, understand the spirit of the Master, who said, "Forbid him not," to the apostles, who had ordered the man to stop doing good in the name of Christ, "because he followeth not with us." This is to properly carry out the injunction which says, "Prove all things; hold fast that which is good." Tens of thousands of large-hearted, conscientious men in all churches, are just as anxious

as we—perhaps more so—to do good in the name of the Master, who would have all men recognize the common fatherhood of God, that they may thus remember the common brotherhood of humanity. “That all may be one” will no doubt come in its own time, and possibly in a way it would be difficult now to forecast; but meanwhile it would be but an indifferent exhibition of the gospel of peace and goodwill, to spend the intervening years in quarrelling with our brothers and neighbours, because they do not agree with us. A clergyman, for example, once told me that he would not know an agnostic as an acquaintance.

Not to speak of the contradiction this involves to the Christian faith, this spirit is refuted by that of the Arabs, the descendants of the man whose hand was against every man. A tradition of theirs is, that late on a cold, stormy night, an aged wayfarer came to the tent of Abraham, and asked for food and shelter. Both were willingly accorded, until it transpired that the guest did not believe in Abraham’s God. “Begone from my tent,” said the patriarch; “no unbeliever in God shall partake of my hospitality;” and he drove him out into the storm. Then the voice of God came to Abraham with the question: “Where is thy guest?” “I drove him out,” was the reply, “because he is not a believer in Thee.” Again came the voice, but now with a question of reproach: “I have borne with his unbelief for seventy years; couldst thou not bear with him for a single night?” When one thinks of the great men one can meet, or whose writings they can read, who for various reasons do not agree with Christianity as it is taught; it would

seem like a gratuitous insult to them to discuss such narrow-mindedness. For myself, some of the best thoughts in literature, and explanations of moral points that were difficulties to me in earlier years, have been got from a perusal of their works.

It is pleasant to think of ideal moral perfection, but it is not an easy matter to find a near approximation to it. This is because it is at the same time the glory of humanity and the weakness of Christianity, that it has been given to human instrumentality to transmit from age to age. It is the glory of humanity that "we have this treasure in earthen vessels;" but the weakness of Christianity since it must suffer by the contact. No matter how pure or perfect its first principles are, it often happens that from unworthy motives, meanings are read into them which are absolutely unwarranted. Hence the divisions of Christianity, which now resembles a tree with one trunk (the early Christian Church) dividing first into three great branches, and these dividing again, and subdividing into branches so small that they finally end in nothing.

Many of these like the Pharisees are striving with might and main to make proselytes; affirming loudly that they only are right, and all the rest wrong. Not content with this, those that have the means are all sending out missionaries to the heathen to make converts, not to Christianity, but to their own special view of it. The extreme result of this happened not long since in Central Africa—a sight calculated to make angels weep—when the converts of different faiths shot each other down in warfare.

Are any disposed to doubt the unworthy motives at times, though possibly unconscious in the sub-

ject? Here is a case. In a garrison town some years since where there was no consecrated church for soldiers, the men who married off the strength were married in the church of the parish which contained the barracks. As these marriages were frequent and a great deal of misery resulted, one day I remonstrated with the vicar. "Surely," I said, "you have read Malthus, and know that by marrying men off the strength you are helping to beget pauper children for the community to support?" The reply was: "My dear man, if I did not marry them what would become of my fees?"

Count Tolstõï and the late author of that able book, *Ecce Homo*, so strongly noted the harm that results to Christianity from its contact with humanity, that each has recorded the fact, the one in *My Religion*, and the other in the preface to his book, that, weary of the endless disputations extant, they went directly to the Gospels of the New Testament for enlightenment, and got it. But there has been a bright streak on the horizon for some time. This is a growing desire for unity. Men generally are tiring of strife and disputation, and asking if nothing can be done towards unity. The same sarcastic question so often repeated by the intelligent Confucian, Indian or Siamese, to the missionary when urged to accept Christianity, "Which form of it shall I accept?" has at length begun to bear fruit; and to let us see that if we think we have duties towards so-called heathen, we have them also towards our fellow Christians. Let us hope that the streak of unity on the horizon will widen into the unclouded, cerulean blue of the whole heavens. Then, at any rate, one great factor will be cancelled

which more than any other retards the ideal of moral perfection in humanity; the feeling of antagonism in fellow Christians towards each other.

Concordia res parvæ crescunt, discordia maximæ dilabantur. (Sallust, Jug. X.)

CHAPTER XXIV.

CONCLUSION.

HERE then we have the highest ideal, perfect happiness resulting from perfection in the individual, physically, intellectually and morally. This is the outcome of the highest philosophical teaching that has been given to us by the ablest men of the century; and yet it is not one fraction in advance of what was taught in the New Testament nearly two thousand years ago. This only proves the fact that there can be no advance upon ultimate truth when it is reached.

What a glorious picture it presents to us. Imagine a race physically perfect, in which as a matter of course, barring accidents, each one lived out his allotted period of life, leaving children behind him to grace the times as he had done. Imagine idiotcy, insanity, deformity, blindness, deafness, or loathsome disease unknown. Imagine this race not absolutely educated—that would be impossible—but as highly and properly cultivated as possibility allowed; and consequently no more ignorance, with the enormous amount of attendant evils that must be laid at its door. Imagine the race as morally perfect as the imperfection of human nature permitted, and no more evil done to others, no more falsehood, selfishness, envy, or jealousy;

but a large-hearted charity that made all deserving of being called the children of the common Father, who is perfect goodness as well as perfect love. The world would be different to what it is now, but alas for human nature! It would cease to be the world, and become a heaven. Our ideal is not possible to humanity, but the great Teacher said it would be a certainty in the future.

What then? Because it is not possible are we to give up in despair? Are we to say there shall be no more effort, "Let us eat and drink, for to-morrow we die"? By no means, for that would be to go back in another way

"To the vile dust from whence we sprung;"

to let the God in us perish, and "the ape and tiger" reign supreme, with all the attendant horrors that would follow in their train.

The teaching of evolution is that man in his present state is the product of the ages. If we accept this, what does it mean? What but that the present state of humanity is the result of growth from the lower to the higher, as a result of effort; and that as a result of further effort, a constant, higher development will result, till the time comes in the future that men will look back upon this present period as but a step towards the position they occupy?

If we turn to distinctly religious teaching, what do we find? Not the same beginning for humanity explicitly taught, but the same lessons of growth and development, as a result of effort. Religious truth as we have it, is the development, the perfection of what had gone before to serve a temporary purpose, and pave the way for a better. The humanity then that accepts this religious truth must

be more enlightened. The ancient method of approach to the Deity was by means of a present or offering, called a sacrifice. People gave their cattle, the best ones they had; and as there is always a tendency in humanity to advance, from this the notion grew that in times of great distress the most valuable must be given, and so the human—the son or daughter was sacrificed. Yet even this is not the highest, and so the later religion takes this ancient idea of sacrifice and makes it perfect, by the Divinity being sacrificed for humanity, the highest sacrifice possible in experience or thought. When the reason for this is given as love, and the teaching is by example—the highest—; we are justified in saying that a humanity possessing this teaching must be more enlightened than that which preceded it. And this religion teaches the great lesson also, that life is effort, that it must be a struggle, ever pressing onwards towards the ideal that cannot be perfectly attained here. The most striking figures are made use of to illustrate this effort, as the man striving in a race to reach the crown, or the soldier armed and fighting; while predecessors who had striven, but “received not the promises,” are extolled.

Would actual attainment of the ideal be better for humanity? It certainly would if this

“Life were all,

And naught beyond the grave;”

but as it is, the striving is better. The best characters are not formed by ease and sloth, but by effort, often involving pain, as St. Paul says of his Master, “being made perfect through suffering.” The mariner who has repeatedly weathered the storm and brought his ship safe into port, is the strong

sailor. The soldier who has faced the foe in the hardness of the frequent campaign, is the man his leader will trust. So the man whose character has been formed by effort and endurance, and by a determined overcoming of difficulties, while pursuing the right path, is the one in whom other things being equal, the highest ideal of development may be seen.

“ And I read the moral—a brave endeavour
To do thy duty, whate’er it’s worth,
Is better than life with love for ever,
And love is the sweetest thing on earth.”

Here then we may take leave of our subject. In these imperfectly written pages, a variety of matters have been touched upon that may furnish thought to young men and women who have felt within themselves the divine longing for truth. If in any way they are aided by what they have read here, and encouraged to pursue the most interesting study of all, the knowledge of the mind, the author will feel that the occupation of his leisure hours for a few months has not been in vain; while best of all it would be, that possibly after he has passed away and is forgotten, some reader—a master mind—moved to effort may give to the world as a result of his reading and thought—deeper than has been possible to the writer—a work of Christian philosophy more calculated to effect what ought to be the aim of all thought and effort, the further higher development of humanity.

THE END.

INDEX.

A

ABEL, 285, 293, 361
 Abilities, 98, 103
 „ of children, 264, 266
 Abraham, 383
 Absolute, the, 337, 338, 354
 Abyssinians, 163
 Accident (fire), 152, 228
 Action, reflex, of brain, 108
 „ of fingers, 108
 Actions, 33; good and bad, 217
 Actor, 148, 270
 Actress, 270, 296
 Adam, 144, 196, 257, 302, 343
 Addison, on the soul, 338
 Addition, 61
 Advance in knowledge, 48
 Aëronaut, 67
 Æschylus, quoted, 237
 Æsthetic, derivation of, 302
 Æthalides, 333
 Agreeables, 220, 223
 Agrippina, 259
 Agnostic, 344, 346, 383; liberal,
 381
 Agnosticism taught, 346
 Air, 26, 64, 134
 Ajax, quoted, 246
 Aldrich, 125, 200
 Alexandrian Library, 232
 Alison, "Hist. Europe," 131, 356
 Alliances, Matrimonial, 290
 Alphabet, 59, 96
 Alps, 311
 Altruism, 229, 237, 295, 350
 Altruist, 149
 Altruistic, 248, 273, 280

Ambition, considered, 258;
 origin of word, 258; bad
 defined, 258; good defined,
 259, 261, 266; in Rome, 258;
 a spur, 264; in a republic,
 264; in England, 265; Hume
 on, 259
 Amphibious, 225
 A——, Mrs., 18
 Analogy, Butler's, xiii, 168
 „ reasoning by, 168-169
 Analysis, 54, 57, 126; after
 synthesis, 60; higher mental
 process, 60, 63
 Analyst, 31
 "Anatomy of Melancholy," 222
 Anger, pain of, 223; considered,
 280; not a sin, 280; origin
 of, 280; painful, 281; degree
 of, 281; in fighting men, 281;
 visible in animals, 282; hard
 to conquer, 283; ethics of,
 284; appearance of, 284
 Ani, Papyrus of, 330
 Animalcules, 17
 Animals, limitations of, 358;
 desire controls will, 105, 210;
 named, 144; reason in, 156;
 differ from men, 322, 337;
 self-preservation of, 224;
 disappear, 225; companion-
 ship, 239
 Annals of Tacitus, 259, 293, 294
 Antipathy, inherited, 291-292
 Antoninus, Marcus A., quoted,
 23, 283
 Antwerp, 227

Anvil, 34
 Anxiety, spur to action, 276
 Ape of Gibraltar, 5, 283
 Apparitions, 18, 19
 Apple, 53, 62
A posteriori, 45, etc.
 Apostles, 343, 382
A priori, 45, etc., 52, 338
 Aptitude, Memory, 110
 Arab, 322; tradition, 383
 Arcadians, 74
 Arcarnanians, 74
 Archimedes, 311
 Aristippus, 320, 364
 Aristocracy, American, 289
 Aristotle, xiii, 151, 153; discovered syllogism, 163; husband and wife, 238; used definitions, 310
 Art, 304
 " Gallery, National, 307
 Artemus Ward, 266
 Artist, 58, 176; memory of, 110; feeling of beautiful, 307
 Ass, tale of, 22; sophism, 172
 "Asserit, A.," 125
 Assistants, shop, 267
 Association of ideas, 108, 113
 Assyrian, 361-362
 Astronomer, 66
 Astronomy, 50
 Atheism, 346
 Athletics, 368; too much, 368
 Atoms, 28
 Attention, concentrated, 111
 Attraction, 138
 Attributes, noble, 270
 Aural illusion, 18
 Australian savage, 121
 Australians, 231
 Authority, what, 344
 Autobiography, Martineau, H., 198

Automatic senses, 36
 Axiom, 195

B

BABE, learns space, 54
 Babylon, 76
 Back, 12
 Bacon's Essays, 123; desire, 254; on profession, 262; envy, 290, 311; wrote Shakespeare, 344
 Balfour, Rt. Hon. A., xii, 340, 344
 Ball, cannon, 64; cricket, 154
 Bank clerk, 210; solvency, 275
 Bankruptcy, 298
 Baptist Minister, 324
 Bath, The (a painting), 307
 Battles, 367
 Banble, 54
 Beautiful, considered, 302; in women, 20, 302, 306, 308, 309, 367; what, 303; useful, 304; trees, 305-306; motion, 306; man's work, 306; different degree of, 307; proportion in, 308; dependent on taste, 308
 Beauty, female, 20; landscape, 20
 Bee, 157
 Beethoven, 12
 Beggar, 148
 Being to worship, 350
 Belief, 343-344, 346
 Berkeley, Bishop, xiii
 Bernard, St. (dog), 308
 Besieged town, 235
 Bias (philosopher), 343
 Bias, 260, 347
 Bible, 74; sublime, 316-317; doctrines, 345; abolition, 380

Bigotry of Specialism, 375 ; in religion, 382
 Biology, Spencer's, 215-216, 260
 Bird, 26, 100
 Bishop, 151
 Black, 137
 Blacks, 292
 Blacksmith, 233
 Blind, 28, 57, 176 ; reading, 8
 Blindness, 2
 Blood, 27 ; circulation, 31 ; purity of, 368
 Blue, 137
 Boar hunting, 6
 Boats, submarine, 7
 Body, 28, 31 ; extended, 51, 52, 354
 Boer, 361
 Bones, 27
 Book, forgotten, 113 ; complex cognition, 140
 Bore, 271
 Boswell, 293, 308
 Brain, 1, 28, 35, 89 ; always busy, 80, 86 ; size limited, 103 ; microscopists, 109 ; telephone, 109 ; cells, 115
 Bread, 62 ; and butter sciences, 372
 Bree, Dr., 282
 Brighton, 269
 British Museum, 330
 Brotherhood, human, 383
 Budge, E. A. W., 330
 Bulk, 126
 Bull, 225
 Burke, 299, 303, 308, 310
 Burnett, Bishop, 325
 Burning building, 228 ; Alexandrine library, 232
 Burritt, Elihu, 103
 Burton, Anat. Melan., 222
 Butler, Bishop, xiii.
 Byron, 274, 277

C

CABBAGE, 309
 Cain, 293, 361
 Cairo, 124
 Cajar, Dr., 109
 Calendar, 74
 Canal, 156
 Cancer, 214
 Candle, 35
 Caracalla, 254
 Carlyle, 259, 264
 Carpenter, Dr., 22
 Carriage, 121
 Cases, law, 171
 Castor oil, 144
 Cat, 156
 Catechism, 265
 Cathedral, St. Paul's, 58
 Cato of Addison, 338
 Cattle, 156
 Causation, 196
 Cause, 52 ; first, 56, 353 ; and effect, 195
 Celebration, early, 381
 Celibacy, considered, 245 ; when best, 246 ; not higher state, 247 ; angelic state, 248
 Cells, brain, 107 ; Dr. Cajar, 109
 Cells, honeycomb, 157
 Cerebration, 81, 83
 Certainty, 13, 14
 Chærilus, 332
 Charity, 148, 294 ; religious, 382
 Charles I., 287
 Change of matter, 23 ; of brain, 103, 104, 109
 Chapters in European History, 348, 350
 Charing Cross, 92
 Cheapside, 136
 Chef, 268
 Chemical Physics, 54

- Cherbunliez, 244
 Chess, 83, 97
 Chicanery, 22
 Child, dreads fire, 27; noticing, 34-35; hand of, 36; no memory, 100; quality of matter, 133; colours, 134; a dose for, 144; doubtful, 146; desires, 210; hopes, 251; also 49, 52, 59, 61-62, 66, 94
 Childe Harold, 275
 Children, 231; who fail, 234-235
 China, 364; Dresden, 304; man, 163
 Chinese Classics, 204, 231, 296, 357; on soul, 334; education, 376
 Chloroform, 86
 Christ Jesus, 382
 Christendom, 322, 361
 Christian Church, 384
 Christianity, 237, 349, 350, 361
 " weakness of, 384
 Chronology, 74
 Chrysippus, 224, 289
 Cirele, 42
 "Civilisation, Cinquième Siècle," 350
 Clairvoyants, 115
 Clergyman, 149, 221, 229, 234, 267, 270, 276; schoolmaster, 380-381; violate law, 324; education of, 375
 Clerkships, 267; bank, 268
 Climate, English, 77
 Clock, 74
 Clothing, 152
 Clouds, 339
Cogito ergo sum, 13, 25
 Cognitions, simple, 133, 136; complex, 139, 140-141
 Cold, 201
 Collier, Jeremy, 299
 Colonial Secretary, 171
 Colonies, 171
 Colour blind, 11
 Colours, 38, 137, 138, 303
 Commodus, 254
 Common Sense, 19, 29, 30, 199, 354
 Companionship, 210, 216-217
 Comparison, 144, 167
 Compass, mariner's, 71
 Competency, 227, 228
 Competition, 227
 Composition, 134
 Comprehend incomprehensible, 67
 Comte, 351
 Conceit, 148
 Concentration, 85; considered, 96; difficult, 97; distractions from, 97; to strengthen, 97; value of, 98
 Conciseness, 123
 Cone, 101
 Confessions of Clairvoyants, 115
 Confucius 357, 376, 385
 Conjuror, 20-21
 Conscience, considered, 318; defined, 319-320; needs education, 323; unsafe, 324; mistaken, 324; watch, 324; how innate, 325; ethics of, 326; never dead, 326
 Consciousness, 33; considered, 79; lost, 79; necessary to acquire knowledge, 79-80; of insanity, 80; before thought, 80; not necessary for thought, 80-81; essence of, 88; conjecture of, 88; discovery of essence, 89; not identity, 89; depends on memory, 90; of child, 94, 353
 Consequent, Law of, 190, 195
 Conservative tendency, 264

Contradiction, Law of, 189, 194
 Contradictories, 196
 Control of thought, 82-83
 "Controverted Questions," 188, 225, 352
 Conversation, 123; considered, 127
 Cook, 268; Captain, 231
 Corinthians, Epistle to, 294
 Corn, analysis, 60
 Corsican, 287
 Costermonger, 20
 Court of law, 158, 171
 Cowper on despair, 300
 Crammers, 371
 Creator, 1, 7, 154; man not, 53
 Creed, 193, 346
 Cricketer, 154
 Criminal, 159
 Criticism, higher, 344-345
 Critics, xiv
 Critique of Pure Reason, xii, 15, 46, 51, 57
 Criton, 343
 Cromwell, 259-261, 286, 287
 Cronje, Boer General, 361
 Cross, 355
 Crucified, 356
 Culture, 233, 240
 Curate, 122, 382
 Cyprus, 122

D

DAGGER, stage, 21
 Dancing, 219
 Danger, pleasure of, 275
 Dante, 255, 315
 Darwin, 282, 304
 Data of judgment, 143
 David, 179, 343
 Day, first, 73; divided, 73; each, 220
 Dead, Book of, 330

Deaf musically, 11
 Deafness, 2
 Death, 78; sudden, 368
 Deborah, 179
 Deciduous trees, 145
 Decorations, 265; value of, 266
 Definition, 121, 125; major premise of syllogism, 169; use of, 310
 Degree, university, 150, 375
 Deity, xv; known by experience, 55-56, 66-67; no time, 76; love of, 237, 338, 353, 354, 359; Christian conception of, 350-352; teaching of, 354, 364, 378, 389
 Delirium, 19, 79, 81
 Delta of Nile, 360
 Democracy, 287, 288
 Democrats, 288, 289
 Depreciation, self-, 271
 Depression, 220-222
 Des Cartes, xiii 133,
 Desire, 95, 107; controls will, 105, 210; influences memory, 112; considered, 206; source of feelings, 207, 319-320; not prominent in writers, 207; Locke on, 207-208; Stoics on, 208; Hamilton on, 208; not will, 209-210; of mind and body, 209; conquers will in animals, 210; yields to it in man, 210; value of, 210-211; of ambition, 258; evil, 377
 Despair, considered, 297; a mistake, 298; from one's own action, 300; Epictetus on, 299; Cowper on, 300; Dr. Syntax on, 310; never hopeless, 301
 Despotism, military, 287, 290
 Dialogue, 172

- Dictator, 288
 Digestion, 28
 Diogenes the Cynic, 187, 343, 363
 Diogenes Laertius, 76, 187, 224, 234; on government, 289; on evil, 320; on soul, 332
 Dionysius, 320
 Direction, 70; relative, none in space, etc., 71
 Disagreeables, 220
 Discord, goddess of, 260
 Discoverer, 53
 Disquiet of error, 146-148; useful, 149
 Dissection, 88
 Distance, 55; empirical, 70-72; measured, 72
 Divinity sacrificed, 389
 Divisibility, 138
 Divisions of Christianity, 384
 Dog, sense of smell, 7; memory, 101; actions, 129-130; dreams, 130; knows some primary qualities, 136; reason, 157
 Domitian, 254
 Doubt, 141
 Dowler, Mrs., 33
 Dozing, 84, 219
 Dreamer (Bunyan), 339
 Dreams, 80; considered, 181; always in sleep, 183; caused by worry, 184; why forgotten, 184; awake us, 184; deceive, 185; no thought control in, 185; caused by outside influence, 185; of children, 186; like reality, 186; rubbish about, 186; warnings, 187
 Dress, 18
 Drinking, 27
 Druids on soul, 335
 Dryden, quoted, 284
 Duty, highest, 231; public, 270 390
 E
 EAR, musical, 9, 12, 110, 176-177; hereditary, 9
 Earth, 65; short revolution of, 74
 Eating matter, 27, 31; pleasurable, 214, 220
 Ecce Homo, 385
 Ecclesiastes, 227, 254; on happiness, 362
 Education, 95, 233; what, 150; wrong, 370; strengthens mind, 373; gentleman's, 373; subjects of, 374; money-making, 374; Spencer on, 374; philosophically necessary, 375; clergy, 375; moral of child, 378; religious in schools, 379; secular cannot reform, 379; moral lasting, 378, 382
 Effects, 52, 353
 Effort, xv, 383
 Ego, 28; non-, 28
 Egypt, 328, 330
 Egyptian year, 74; king, 76
 Elaborative sermons, 170
 Electricity, like thought, 88-89
 Elegy, Gray's, 304
 Elijah, 147, 328
 Elliot, George, 364
 Emergency, 152
 Emotion, concentrates attention, 111; considered, 201; what, 202-204
 Endor, 328
 Engine, 83, 121, 194
 England, 77, 265, 289; Church of, 354
 English language, 128, 165, 191, 199; man, 77

Envy, with desire, 223; considered, 285
 Epictetus, 23, 295, 299
 Epicure, 10
 Epicurus on soul, 334, 364
 Equality an evil, 255-256; of birth, 261; impossible, 261
 Equation, personal, 44, 218
 Erckmann-Chatrian, 245-246
 Error, what, 146, 191; Kant, 15; of *a priori*, 46
 Erus, 87
 Essay on man, Pope's, 4, 285
 Essays, Posthumous, Mill, 24
 Ethics, Spencer's, 196; Aristotle's, 151, 202
 Eton, 200
 Euclid, 53, 59, 125, 158, 274
 Euclides, 169
 Euphorbus, 333
 Eve, 256, 302, 360
 Evil, 377, etc.
 Evolution, 282, 388
 Examination of religions, 382
 Example, 236; teaching by, 389
 Excluded Middle, Law, 189, 194
 Exercise of youth, 215; age, 215
 Expediency, 348
 Experience, 45-52; of *a priori*, 53; to realize, 66; thought, 138, 144; required for judgment, 150-151; Aristotle on, 151; defined, 192; of men, 258; of humanity, 342-343; human nature same, 361
 Experimenter, 89
 Extension, 47, 51; considered, 135
 Eye, 16, 222; of fish, 6

F

FACTORS, 61
 Faculties, education of, 6

Fainting, 86
 Faith, considered, 342, etc.; necessary, 348
 Fakir, 213
 Fallacies, xiv
 Family, founding of, 235, 289
 Father (God), 388
 Fatherhood of God, 388
 Fear, 11, 97, 153; considered, 274; defined, 275; stages of, 275; uncertainty of, 277; terror, 277; passion, 278
 Feeling, sense of, 2, 303; figurative from touch, 201
 Feelings, considered, 200-201; defined, 201, 302; of body or mind, 201; what, 202-204
 Fees, church, 385
 Filaments, brain cells, 106; Cajar on, 109; how they act, 109
 Finite, 68
 Fire, 27, 152-153, 294
 First Principles, Spencer's, 4, 25, 56
 Fish, eye of, 6, 26, 100
 Flame, 27
 Flesh, 27
 Flood of river, 156
 Food of child, 95; youth, 214-215; adult, 215, 223; desire of, 226; young animals, 226; causes toil, 227; causes progress, 228-229, 304
 Fools, 147, 204
 Force, 24
 Forgetting, 111-112
 Form, 134; considered, 135
 Fossils, 225
 Foundations of belief, xii, 340
 Fox terrier, xi; intelligence of, 120
 French, 122; nation, 266; no Bible, 380

Friend, 113
 Friendship, married, 238
 Frivolity, 220
 Froude, 345
 Fuller, quoted, 280
 Funnel, 121

G

GAMES, 154
 Gargoyle, 121
 Garibaldi, 261
 Gaseous, 23, 24; matter, 64
 Gases, repulsion of, 349, 351
 General (officer), 146, 272, 367
 Generals, 126, 163
 Genesis, 282
 Gentleman's education, 373
 Gentlewoman, 163-164
 Geology, 225
 Ghost stories, 19
 Gibraltar, 5, 283
 Gilbert, W. S., 65, 242, 344
 Gladstone, 260
 Glass, 134
 Glasses, distorting, 28; magnifying, 28; submarine, 7; tinted, 28
 God, 55, 76, 172, 313, 315, 332, 346; invented, 379
 Goddess of Discord, 260
 Gold, 53; imagined, 175
 Goliath, 262, 311, 367
 Goodness, 50; happiness, 363
 Gospels, 296, 385; of unbelief, 348
 Goulburn, Dean, 325
 Gout, 282
 Governess, 268
 Grammar, 61, 165, 274
 Gratitude, 121
 Gravitation, law of, 53
 Gray's Elegy, 304
 Greece, 355

Greek, 68, 74; language, 90; words for soul, 327, 329, 330; soul belief, 331
 Green, 174
 Gregarious, 216
 Greyhound, 308
 Grief, 97; with desire, 223; considered, 295; deprivation causes, 296; passion of, 296; silent, 296
 Gun, 64
 Gymnasium instructor, 369

H

HABITS, 292
 Hair, 27; dresser, 263
 "Halifax, John," 235
 Hamilton, Sir W., xi; gravitation, 53; analysis, 61; infinity, 67; laws of thought, 188; authority of, 190; sufficient reason, 190, 195; desire and will, 208; pleasure, 212; education, 372
 Hammer, 34
 Hand, 16; flesh of, unchanged, 104
 Handel, 12
 Happiness, 337; considered, 357; how to find, 358; destroyed, 358; evil of, 358; of great, 359; taught by Moses, 359, 362; Solomon, 362; Jesus Christ, 363; by Greeks and Romans, 363; by Indians, Chinese, Persians, 364; perfect, 364
 Harris, Dr., 232
 Hatred, 40; considered, 291; congenital, 291; from tastes, 292; of goodness, 293; from obligations, 293; like fire, 294
 Hearing disturbed, 16
 Heart, 368

Heat, 201
 Heathen, ancient and Bible, 316, 332
 Heaven, 218
 Heavens sublime, 314
 Hebrew words for soul, 327; history, 358
 Hebrews, Epistle to, 237
 Height, 367
 Help of friends, 228
 Heraclides Ponticus, 333
 Hexagonal honeycomb, 157
 Higher Criticism, 344
 History, 259-260; of Rome, 285; European morals, 277
 Hobby, 97
 Homer, 179
 Honey, 381; comb, 157
 Hope, considered, 251; of child, 251; of boy, 252; manhood, 253; age, 253; in religion, 253, 301; necessary for happiness, 254; absence causes misery, etc., 254; spur to work, 255
 Horace, 177, 248, 365
 Horse, 14, 22, 43, 165, 178, 322
 Hour glass, 73
 Human, mind, xi; understanding, 37, 38, 41, 51, 106; nature the same, 359; race perfect, 387; beings not innately moral, 322, 359
 Humanity, noblest of, 228, 289; perfect, 286; and Christianity, 384; desires of, 358; morally better, 361; ideal, 387-389; enlightened, 389
 Hume, xiii; Spencer on, 347; taught Atheism, 347
 Hunger, what, 209
 Huxley, law, what, 190; fossils, 225, 282; on innate evil, 321
 Hypothesis of memory, 106

I

Ice, 24
 Ideal, the, 389; not possible, 389
 Idealism, 24
 Idealists, 13, 25; *cogito ergo*, 25
 Ideas, sensible, 51; complex, 62; association of, 108
 Identity, 89; law of, 189
 Idiocy, 80
 Idiots, 292
 Illiterate, 62, 164
 Illusion, aural, 18
 Illustration, 177; papers, 177
 Imagination, considered, 174; limited by experience, 174; not a faculty, 175; what, 175; strong, 176; of things non-existent, 177; of savages, 178; of animals, 178; same as word painting, 178; affects reasoning, 178
 Imago, 174
 Immediate knowledge, 41
 Indestructibility, 138
 India, 364
 Indian, 385
 Inductive, 166; reasoning, 170
 Inertia, 138
 Infant, 38; desires of, 206
 Infinity of space, 65; negative expression of, 68; positive expression of, 69; of time, 73
 Injury, pain, 221-222, 280, 296
 Insane, 19, 80-81
 Insects, 100
 Instinct, 156
 Institutions, democratic, 289
 Intellect, 49
 Intellectual, 365, 370
 Interruptions, 98, 198
 Invention, 162, 227
 Iron, 32

Isaiah, 343

Island, 169

Isosceles triangle, 193

J

JAMES, St., quoted, 283

Jesus Christ, 343; accepted Old Testament, 345; demanded obedience, 347; teacher, 359, 363

Jews, 237, 345-346, 362

Job, Book of, 6, 179; on fear, 277, 298, 338

John, St., 170, 218, 345-346

Johnson, Dr., 85-86; on vanity, 271, 293; on the vulgar, 308; endeavour, 299

Jones, Inigo, 264

Joseph, 285

Josephine, Empress, 287

Jouffroy, Mons., 182

Judges, experienced men, 151, 171

Judgment, 14; deceives, 20-21; differing, 20; synthetic, 51; not knowledge, 52; what, 52; considered, 143; true or false, 143; data of, 143; comparison, 144; exercised early, 144; of senses, wrong, 145; to get truth, 145; good requires age, 150; perfected late, 151-152; rapidity of, 152-154; day of, 87

K

KANT, xii, xiii; quoted, 46-55; senses do not err, 15; senses no judge, 15

King, 286-287

Knowledge, considered, 37; through senses, 37; from experience, 37; none innate, 37; empirical, 39-47; philosophic,

39; reasoning, 39; indirect empirical, 39; reflecting, 39; intuitive, 41; immediate, 41; mediate, 41; *a priori*, 45-53; mathematical, 47; triple source, 47; synthetic, 57; advanced, 59; increasing, 99; acquired, 117; got slowly, 233; considered with faith, 342; perfect human, 354

Krakatoa, 312

L

LABOUR, mental and manual, 269

Ladies, 10

Lady of the Lake, 116; Atheist 347

Lamp, 35

Landscape, 20

Language, xi, xiv, 63; foreign, 81; acquisition, 103; considered, 117; as given in Bible, 118; common origin (M. Müller), 118-119, 121; of animals, 119; of gesture, 120; primeval man, 120; modern, 122; helps education, 124; synthesis, 126; of absent, 127; gives pleasure, 128; which best, 128; English, 128; Hamilton, Sir W., on, 131

Latin names, 45; words for soul, 327

Laughter, 218-221

Law, meaning of, 188; of thought, 188, 192, 199, 342; of survival, 226-227; of strength in animals, 215, 216; of experience, 216; of supply and demand, 267; moral, 237, 366

Lawn tennis, 154

- Laws, four, of thought, 188;
stated, 189; moral, 238, 319
- Lecky, quoted, 277
- Leibnitz, xiii
- Letters, on retina, 16; of alphabet, 59
- Library, 115
- Licentiousness, Stoics on, 284
- Liddon, Canon, quoted, 349
- Life, 31-32, 33, 101; principle of, 33; periods of, 74; of Pusey, 349; imperfect, 378
- Light, pressure on eyes, 17; sensation of, 35; created, 73, 194
- Liking affects memory, 110-111
- Lily, W. S., quoted, 348, 350
- Lions, 27
- Liquid, 23; matter, 64
- Litany, quoted, 285
- Livy, quoted, 285
- Locke, "Human Understanding," xiii, 37, 38, 41, 51, 170; against syllogism, 160-163; on desire, 207-208
- Logic, Hamilton's, 61, 67, 131
- London, 92, 228, 235
- Longings of soul, 338, 339
- Longinus on sublime, 316
- Lord (Jesus Christ), 293
- Lord Chancellor, 262
- Loss of memory, 114
- Louis XVI., 287
- Love, 11, 40, 97; considered, 237; foundation of religion, 237; sexual, 238; basis of, 238; uncivilized, 240; civilized, 240; hasty in men, 240-241; prudent in women, 241-242; affects mind, 242; pleasure of, 242; awakes religious feeling, 243; spur to action, 243; excites ambition, 244; begets constancy, 244; affects actions, 245; parental, 248-249; filial, 251; of God, 389
- Luggage, 121
- Lumber, 121
- Lungs, 206
- M
- MACHIAVELLI, 293
- Maëlstrom, 313
- Mafeking, 235
- Malthus, 385
- Man, unlike animals, 322; gregarious, 216; self-made, 266; littleness of, 315; medical, 235
- Manchester, 136
- Manual labour, 267
- Marble, playing, 57; stone, 106-107
- Marconi system, 194
- Marcus Aurelius Ant., 23, 283, 295
- Margaret, an outcast, 233
- Mariner, 389
- Marriage, 246; in army, 77, 230, 247, 385; dangerous, 366
- Mars, 65
- Martha, 184
- Martineau, H., quoted, 198
- Master (Christ), 382
- Masticate, 28
- Mastiff, 308
- Maternity, feeling, 231
- Mathematical, propositions, 46; problems, 44, 97; demonstrations, 48
- Mathematician, 44
- Mathematics, intuitive, 44; pure, 46-47; mixed, 46-48, 49
- Matter, existing, 3, 47; non-existing, 13; always existing, 197; realize, 23; how known, 30; qualities of, 133

- Matthew, St., 172
 Maudsley, Dr., on vanity, 271 ;
 on Christianity, 354, 361
 Measurement, of space, 69 ; of
 extension, 69
 Medals, 266 ; value of, 266
 Medical, man, 234 ; meta-
 physician, 89
 Mediterranean, 143
 Mediate knowledge, 28, 41
 Melancholia, 220, 222
 Melancholy, Anatomy of, 222
 Mélanges, of Jouffroy, 182
 Memory, 34, 35, 52, 90, 95, 98 ;
 considered, 100 ; none, 100 ;
 necessary, 100-101 ; facts re-
 tained, 101 ; no permanent
 change in brain, 102 ; change
 believed, 102 ; infinite, 102 ;
 caused by motion, 106 ; dis-
 abled, 114-115 ; power of,
 115-116 ; reflection on, 141
 Memphites, 360
 Mencius, quoted, 231
 Meningitis, cerebral, 79
 Mental labour, 267 ; physiology,
 22
 Mercury, 66-67
 Metaphysics, Hamilton's, xi, 89
 Micah, longing of soul, 338
 Microscopists, brain, 109
 Mill, J. S., 24
 Miller, 84
 Milton, 278 ; on despair, 298 ;
 on beauty, 302
 Mind, 28, 30 ; presence of, 153 ;
 active, 162, 181, 182, 184 ;
 active denied by Locke, 181
 Miracles, 346
 Mirror, xi, 14
 Missionary, 121, 148
 Missions, 384
 Monarchy, 286 ; lasting, 287
 Moon, 65, 71, 73, 76 ; light, 11
 Moral law, 319, 366-367 ; dis-
 tinctions unknown to animals,
 325, 337
 Morality, 378 ; taught early,
 378
 More, Sir T., 245, 279
 Mortality, 77
 Moses, 343 ; wrote Pentateuch,
 345, 359-362 ; quoted by
 Longinus, 316
 Mother, frightened, 94, 235, 292 ;
 teaching, 378
 Motion of brain, 106-110 ;
 heavenly bodies, 73 ; electric,
 of dead muscles, 88
 Motive, 235
 Multiplication, 61
 Multitude, contagion of, 131
 Murder, from envy, 285 ; from
 hatred, 294
 Muscles, voluntary, 105, 107
 Music, of organ, 339 ; of heaven,
 340
 Mustard, 148
 " My Religion," Tolstoi, 385

N

 NAILS, human, 27
 Name, family, 235
 Napoleon I., 260, 287-288
 National Art Gallery, 307
 Nature, animated, 26, 226, 228
 232 ; beauty of, 304 ; inani-
 mate changes of, 360 ; human
 dual, 319, 377
 Nebulæ, 314
 Nebular Hypothesis, 361
 Necessity, absolute, 47
 Negation, object of thought, 68
 Nero, 254, 259
 Nerves, 32, 87, 221-222 ; act
 automatically, 93-94 ; con-
 ductors, 32 ; of animals, 225 ;
 optic, 15

New Testament, soul in, 329
 Newton, Sir I., 53, 311
 New York, 232
 Niagara Falls, 312; sublime, 313
 Night, 73
 Nile, 360
 Nobility, European, 289-290
 Noble, an English, 289; a republican, 290; best of humanity, 289
Non Ego, 28
 Note, musical, 9
 Nothing, 65-66
 Notions, 138
 Numa, 74
 Nurse, 35

O

OBJECTS, moving, 35; attractive, 35; external, 49
 Observation, considered, 115; rapid, 115
 Occupations, selfishness, 229
 Office, political, 151
 Officer, 234
 Old Testament, known to some ancients, 316, 332; words for soul, 328, 329, 345, 346
 Omar Khayyam, 364
 Omnipresence, 197
 Onomotopœia, 120
 Opaque, solids, 193
 Opium eater, 82
 Opposition, 50
 Optic nerve, 15
 Organ music, 339
 Oryx, 225
 Ossian, poems of, 179, 253; on spirits, 336
 Oxygen, 209
 Ozanam, quoted, 350

P

PACIFIC Islanders, 228
 Pain, 201; daily, 220; con-

sidered, 221; caused by error, 148; voluntary, 212; seen in actions, 222; with sensation, 223; indirectly with desire, 223; bodily, 223, 272
 Painter, 20
 Painting, toilet habits, 307
 Pamphylion, 87
 Papyrus of Ani, 330
 Parable, 157
 "Paradise Lost," quoted, 278, 298, 302, 315, 326
 Parents, love children, 230; educate them, 234; noblest work, 234; neglect children, 234; love for each other, 238; die for children, 227; eat them, 227; unhealthy, 366
 Particulars, 58, 126, 151; impossible to name, 126
 Parts, 58
 Passions, 11, 201; what, 203; subjugate will, 203-204
 "Patience," Gilbert's, quoted, 65, 242
 "Patience," Sullivan's, 340
 Patmos, 339
 Patriarchs, 338
 Patrician, 289
 Paul, St., quoted, on self-preservation, 225; on marriage, 247, 294-295; to Romans, 319, 321, 338, 360; on longings, 338; accepted Old Testament, 345; on anger, 280; on goodness, 364
 Pauline Epistles, 345
 Peasant, 20
 Pedlar, 85
 Pentateuch, 345
 Perception, D. Stewart on, 30; sense, 36, 39; considered, 91; Locke's definition, 92; time of, 92, 354

- Perfection, considered, 357 ;
 taught by Christ, 363 ;
 physical considered, 365 ;
 three parts, 365 ; intellectual
 considered, 370 ; moral con-
 sidered, 377 ; pleasant ideal,
 384 ; retarded by disunion,
 386
 Periander, 343
 Pericles, 260
 Persian proverb, 152
 Pharisees, 384
 Phavorinus, 310
 Philanthropist, 229
 Philosophy, of life, 47, 336 ;
 ancient taught man born
 good, 320 ; sins were not so,
 320 ; 355, 374, 375, 353
 Philosophical Essays, Stewart, 1
 Physical, 365 ; injured, 366 ;
 principal for health, 366 ;
 disabilities, 366 ; good de-
 pends on education, 367 ;
 over-culture of, 368 ; culture
 of girls, 369
 Physician, 368
 Piano playing, 8, 108 ; tuning, 9
 Pickwick Papers, 33
 Picture on retina, 16
 Pink, 17
 Pity, considered, 273
 Plato, 3, 55, 86 ; idea of time,
 76 ; cycle of, 287-288 ; on
 soul, 332, 340 ; on immor-
 tality, 340
 Pleasure, 95, 201 ; considered,
 212 ; Hamilton on, 212 ; defini-
 tion of, 213 ; in abstract, 213 ;
 joined to sensation, 213 ;
 bodily, 214 ; of meditation,
 217 ; and pain from actions,
 217 ; a feeling, emotion, etc.,
 217 ; of mind reacts on body,
 217 ; shown in actions, 218 ;
 daily, 220 ; balance pains, 220,
 358
 Plutarch, Lives, quoted, 74, 260
 Point, 49
 Pointer (dog), 129
 Politics of republic, 286, 287
 Polybius, quoted, 299
Pons asinorum, 177
 Pope, quoted, 4, 285
 Population, over, 320
 Position in life, 151
 Positivism, 351 ; Huxley on,
 352
 Posterity, 231
 Postulate, 23, 29
 Power, 353
 Powers, 337
 Preacher, 170
 Premise, major and minor, 159
 Presence of mind, 153 ; uncom-
 mon, 153 ; can be cultivated,
 and is courage, 153
 Preservation, of race, 230, etc. ;
 desire of, 230
 President of republic, 286
 Pressure, 64
 Prey, beasts of, 322
 Primary qualities, 133
 Prince, of Wales, 362 ; The, of
 Machiavelli, quoted, 293
 Prisoner of Chillon, 277
 Progress, 233
 Pronunciation, 128
 Propagate, 232
 Propagation, of animals, 231 ;
 in man, 232 ; best, 232-233 ;
 of criminals, 232 ; desire of,
 238
 Proportion, 167-168
 Proposition, Euclid, 59, 158
 Proselytes, 384
 Proverbs, quoted, 283
 Providence, 1, 20, 214
 Prudence, 151

Psychology, Spencer, xiii ;
 dealing with, 274
 Public speaking, 98, 130
 Pulp, 28
 "Punch," 218, 366
 Pupil, 61, 122
 Pusey, Life of, quoted, 349
 Pyramid, great, 76
 Pyrrho, philosophy of, 344
 Pythagoras, 53, 310, 332

Q

QUAKER, 273
 Qualities, of matter, 31, 34 ;
 learnt early, 36, 62 ; consi-
 dered, 133 ; second, 139
 Quarrels, religious, 383
 Quartz, 53
 Queen, 103, 237, 286

R

RABBIT, 231
 Race preservation, 230, etc. ;
 human, 226, 234 ; perfect, 387
 Rain, 156
 Rambler, Johnson's, 85, 271,
 299
 Reading, general, 382
 Reality, 25, 29, 145
 Realize, 66
 Reason, 39, 48 ; considered,
 156 ; not special faculty,
 156 ; human and animal,
 157 ; cultivated, 157-158 ; re-
 ligion of, 356 ; and conse-
 quent law of, 190, 195-199
 Reasoning, 39, 155-156 ; of
 Euclid, 158 ; methods of, 166
 "Recent Advances in Physical
 Science," 24
 Record-breaking, 369
 Rediscoveries, 232
 Reflection of Light, 134 ; think-
 ing, 140 ; proper, 141

Reflex action, 107
 Regular soldiers, 153
 Reid, xiii, 90, 133
 Relativist, 354
 Religion, 228, 237, 353 ; of
 reason, 356 ; taught by school-
 master, 379 ; differences in,
 382 ; too much, 381 ; a plea-
 sure, 382
 Reminiscences of age, 253
 Remorse, 326
 Republic, of Plato, 86, 340
 value of titles in, 266 ; un-
 stable, 286 ; politics of, 287 ;
 ideal, 286 ; envy in, 287 ; of
 U.S.A., 288 ; future of, 289
 Rest, 219
 Retina, 14, 83
 Revelation, 55 ; quoted, 313,
 316
 Reverie, 84-86
 Revolution, French, 349
 Rewards of worth, 265
 Rifle, 21
 Right, 236
 Robertson, Rev. F., quoted, 269
 Röntgen Ray, 193
 Rome, empire of, 259, 355 ;
 republic of, 261, 289, 290 ;
 history of, 285
 Rook, 12
 Ruskin, quoted, 304
 Russian, pedlar, 85 ; soldier,
 283

S

SACRIFICE, 389 ; human, 389
 highest, 389
 Sallust, quoted, 386
 Samson, 311
 Samuel, 328
 Sandow, 311, 367
 Saul, 328
 Savage, 43, 149, 178 ; nations,
 120

- Schlegel, quoted, 47; on soul, 336
- Schools, 262; in philosophy, 30, 350; religion in, 379
- Schopenhauer, 344
- Science, natural, 48, 50, 354
- Scipio Africanus, 261
- Scott, Sir W., 116
- Scriptures, 313; ancients read, 316, 332
- Scruples, 324
- Sea, 143
- Sea-sickness inherited, 292
- Secondary qualities, 139
- Secretary, Colonial, 171
- Secularist, 379; why moral, 379
- Sedgwick, Alfred, xiv
- Selfishness, by occupation, 229
- Self-made men, 264
- Self-preservation, 214-215; considered, 224; instinctive, 224; Stoics on, 224; spur to action, 228
- Seniors, 150
- Sensate, to, 92
- Sensations, 33, 35, 39, 100; like electricity, 88; considered, 92; affect memory, 94; separated, 95; causes brain motion, 106
- Sense, common, 19, 29, 30, 201
- Senses, five, 1; strength of, 3; education of, 8; not used, 10, 37; different in different persons, 10; in women, 10; strengthened by emotion, 11; defective, 11; infallible, 13-22, 33; if deceive, 16; general error, 21; usual temperature, 15; healthy, 17; limitations of, 3-4, 20-21, 145; none, 2; one only, 2; deception chicanery, 22; 36, 200, 201
- Sermon, 170; on mount, 362
- Serpents, 292
- Service, divine length of, 382; compulsory, 381-382
- Sex, intercourse, 238; opposition, 240
- Shadow, 112, 134
- Shakespeare, quoted, 219, 220, 305, 369; on ambition, 258; on envy, 286; on hatred, 293; a myth, 344
- Shark, eye of, 6
- Sheep, 225
- Shelley, 364
- Shipwreck, 111
- Shock, nervous, 21
- "Short Studies in Great Subjects," 345
- Shylock, 293
- Siamese, 385
- Sidereal facts, 50; system, 65; sight, sense of, 3, 28, 34; influences memory, 110; learn quickly by, 177
- Sin, what, 168, 323, 377
- Skull, 32
- Sky, 66
- Slavery, noblest, 235
- Sleep, 83, 182
- Smell, 2, 4; influences memory, 110
- Smiles' "Self Help," 264
- Snake, 93; story, 345
- Sociology, Spencer's, 260; on personal worth, 265; human nature changeable, 359
- Socrates, xiii, 246; used definitions, 310
- Sodom, 359
- Solar system, 71, 314
- Solidity, 134-135
- Solomon, 146, 227, 283; quoted, 362, 381
- Solon, 343

- Somnambulism, 80-81
 Son, 230 ; of king, 286 ; of men, 302
 Sophism, 172
 Sophistry, 173
 Sophocles, quoted, 246
 Sorrow, 201, 296
 Soul, 33, 87 ; considered, 327 ; Hebrew for, 327 ; Greek, Latin for, 327 ; belief in ancient world, 328 ; words for in Old Testament, 328 ; Egyptian belief in, 330 ; Plato on, 332 ; Pythagoras on, 333 ; Chinese belief, 334 ; Druids, 335 ; Schlegel on, 336 ; what, 336 ; not in animals, 336 ; taught by Revelation, 338 ; longings of, 338-339 ; from heaven, 340
 Sound, waves, 3, 303 ; influence memory, 110
 Sounds, 124-125, 178
 Space, 55 ; considered, 64 ; as entity, 69, 353
 Speaker, 98, 179
 Speaking, 98 ; best, 179
 Specialists, 370-374
 Speech, 82
 Spencer, H., 4 ; reality, 25 ; first cause, 56 ; law of strength, 215 ; what law is, 188 ; causation, 196, 282 ; bias, 321 ; attacked, 353 ; religion and science, 353 ; two errors, 359 ; on education, 374
 Spirits, 19, 87
 Spohr, 12, 340
 Square, 49, 58
 Stab, 21
 Stars, 71, 73, 314 ; infinite, 314
 State, future, 77
 Statesman, great, 146
 Steam, 24, 134
 Steamship, 194
 Stephenson, 264
 Stewart, Dugald, 1
 St. Helena (island), 361
 Stoics, 187 ; on anger, 208, 284, 288, 295 ; used definitions, 310 ; on soul, 333
 Stomach, 28
 Stone, 36
 "Stonehenge" (author), 322
 Stranger, 113, 148
 Strife, religious, 335
 Sublime, 303 ; considered, 310 ; not in power of animals, 311 ; fear not in it, 311 ; an emotion, 311 ; in matter, 311
 Substance, 134
 Suffering, 229, 272
 Sullivan, Sir A., 340
 Summum Bonum, considered, 357 ; what, 357 ; way to, 358, etc.
 Sun, in eyes, 16 ; and Mercury, 66 ; motion of, 73 ; earth round, 75 ; Ossian on, 179 ; sublime, 313 ; worshipped, 314 ; rise and set, 339
 Syllogisms, 157-158 ; simple, 159, 170 ; what, 159 ; opposed by Locke, 160 ; in conversation, 165 ; unconscious, 164-165 ; inductive, 166 ; in comparative reasoning, 167 ; not "invented" by Aristotle, 170 ; enter into reasoning, 170
 Syllogistic, 199
 Sympathy, considered, 272 ; with desire, 272 ; valuable, 272 ; in grief, 295
 Syntax, Dr., quoted, on wife, 247 ; on despair, 300
 Synthesis, 54, 57
 Syrian, 122
 Syringa, 110

T

TACITUS, 259, 285 ; on hatred, 293
 duty, 332
 Tait, Prof. P. G., 24
 Talleyrand, 356
 Talmud, 296, 363
 Taste, 2, 10 ; disturbed, 16 ; influences memory, 110
 Tastes, 292, 308
 Taylor, Jeremy, 299
 Teach, truth, 346 ; not negations, 346-347 ; mistakes, 348
 Teacher, 59-60 ; religious, 379 ; great, 359 ; moral, 380 ; philosophy, 372, 388
 Teaching, religious, 368, 380 ; a development, 388
 Tears, 222
 Telegraph, 33, 194
 Telephone, 92 ; in brain, 109,
 Telephotography, 194 [194
 Telescope, 12
 Temperance, 369
 Tendons, 27
 Tennyson, on love, 244 ; on grief, 296-297
 Terror, 276 ; physical effects, 277
 Testimony, credibility of, 343
 Thales, 343
 Theatre burning, 153
 Theodorus taught evil, 320
 Theology, 382
 Thinking, logical, 48
 Thought, how produced, 32 ; control, 38, 82, 95 ; laws of, 43, 188 ; confusion of, 310 ; concentrated, 83 ; considered, 91 ; beginning of, 94 ; limited by experience, 194
 Thoughts, Marcus A. Ant., 23,
 Tiger, 27 [283, 295
 Time, Kant on, xii ; considered, 73 ; learnt by experience, 73 ; a convenience, 74 ; began with

world, 75 ; destroyed, 76 ; in future state, 77, 353
 Titles, 265 ; value of, 266, 289
 Toilet painting, 307
 Tolstoi, Count, 385
 Tom Thumb, 367
 Touch, 2, 15, 29, 33 ; education
 Town besieged, 235 [of, 8
 Toy, 95
 Trades, beauty in, 307
 Tree, Christianity like, 384
 Triangle, 41, 49, 53, 193 ; 20th prop. Euclid I., 53
 Trinity, Holy, 193
 Tripod, 57
 Trobot, 175
 Troilus and Cressida, 286
 Trouble, 77
 Truth (Kant), 15 ; what, 145, 192, 354 ; self-evident, 23 ; mind rests in, 146
 Truths, two scientific, 24
 Tunes, 177 ; tuning piano, 9
 Tutors, specialists, 371

U

UNBELIEF, gospel of, 349
 Unconditional, 47
 Unconsciousness, 79-80 ; degrees of, 84 ; of insane, 81 ; of opiates, 82 ; of sleep, 83
 Undergraduate, 42
 Understand, space, 66 ; possible, 67 ; infinity, 68
 Understanding, the, xiii
 United States of America, 264,
 Unity, religious, 385 [289
 Universal, a, 159
 Universe, 66
 University, xi, 42 ; professor, 43 ; degree, 150, 374, 375
 Unknown, 47
 Utilitarianism, 224
 Utopia, quoted, 245, 380

V

VANITY, considered, 269; personal, 269; contemptible, 271
 Veal, 291
 Vedas, 296
 Vegetables, 32
 Vegetarian, 291
 Venus, planet, 175
 Vesuvius, 311
 Victory in argument, 147, 172
 Violin, 9
 Virgil, quoted, 276, 279
 Voltaire, 344, 379
 Vulgarity, 240
 Vulture, 6

W

WAKING, 84
 War, civil, American, 288
 Warmth, 201
 Warner, Mr. F., song quoted, 305
 Waste of body, 27; of brain, 109
 Watch, 74
 Water, 62
 Watering place, 344
 Watt, 264
 Wayfarer, 383
 Wealth, divided equally, 255
 Weapons of animals, 225
 Web of life, 220
 Weight, 134; considered, 136; of air, 138
 Western States, 266
 Whateley, 212
 Whewell, 264
 White, 42, 191
 Wholes, 60, 61, 195
 Wickedness, 50
 Wiertz Gallery, 227, 261
 Wife, 236; scolding, 247
 Will, 40; considered, 104; influenced by desire, 105; con-

trols desire, 106, 206, 210-211; not desire, 208-209; in feelings, 202
 Wind, 155, 164
 Winkle, Mr., 33
 Wit, 218; cultivated in children, 218, 268
 Wives, 10
 Women, 152, 231, 241; their work, 366; their constitution, 369
 Woods, beauty of, 305
 Words, are names, 121; education depends on, 124; are sounds, 124; not necessary for thought, 129-130; when good for thought, 130; in public speaking, 131
 Work, of man, 76; a blessing, 257
 Working people (the beautiful), 307
 World, 55; no time, 75; not ugly, 305
 Worship, a Being to, 350; of Humanity, 351
 Writers, great, 146
 Writing, best, 179

X

XANTIPPE, 246

Y

YEAR, length of, 74; in Mercury, 75; in Herschel, 75
 Yellow, 17
 Yosemite valley, 311
 Youatt, on the horse, 322
 Youth, 150-151

Z

ZENO, on desire, 208, 224; on government, 288
 Zoological Gardens, 27



LONDON
GILBERT & RIVINGTON, LIMITED,
ST. JOHN'S HOUSE, CLERKENWELL, E.C.

17

14 DAY USE
RETURN TO DESK FROM WHICH BORROWED
EDUCATION-PSYCHOLOGY
LIBRARY

This book is due on the last date stamped below, or
on the date to which renewed.

Renewed books are subject to immediate recall.

7 DAY USE
SUMMER

DURING
SESSIONS

MAY 11 1965

APR 28 RECD - 8 PM

JUN 25 1992

SUBJECT TO RECALL

AUTO DISCHARGE

JUN 11 1992

RECEIVED

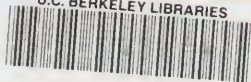
JUN 11 1992

ED-P

LD 21-50m-12,'61
(C4796s10)476

General Library
University of California
Berkeley

U.C. BERKELEY LIBRARIES



C030684868

